

AERIAL SURVEY
HAZARDOUS MATERIALS DISPOSAL SITES
IOWA, KANSAS, MISSOURI
JULY-SEPTEMBER 1979

EMSL-LV PROJECT 7964

by

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Under Contract EPA 68-03-2636

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JANUARY 1980



ABSTRACT

The EPA Environmental Monitoring Systems Laboratory, Las Vegas, Nevada, acquired color infrared photography on 17 selected waste disposal sites within the states of Iowa, Kansas, and Missouri. The data were collected at photo scales ranging from 1:6400 to 1:19800 on July 16, 17, 27 and September 8 and 30, 1979.

The purpose of this project was to provide EPA Region VII with data pertaining to the following four categories: location of dumping activities; outfalls, spill containment, and surface drainage analysis; apparent leachate emanation identification; and obvious vegetation stress and/or damage evident around specific sites.

Analysis of the many varied sites revealed most product storage tanks were adequately contained. Vegetation damage/stress was noted adjacent to several facilities and landfill sites. Four sites requested by the region (three in Missouri, one in Iowa) were not analyzed due to lack of photographic coverage.

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PROJECT SUMMARY

An aerial survey of selected waste disposal sites in the states of Iowa, Kansas, and Missouri was performed by the Environmental Monitoring Systems Laboratory, Las Vegas, Nevada, at the request of the Air and Hazardous Material Division, Environmental Protection Agency, Region VII. Color infrared photography collected at scales varying from 1:6400 to 1:19800 on July 16, 17, 27, and September 8 and 30, 1979, was utilized for the stereoscopic analysis of 17 commercial sites.

The purpose of this project was to provide the region with data relating to the following four categories as they pertain to the selected sites: the location of dumping activities; outfalls, spill containment, and surface drainage analysis; apparent leachate emanation identification; and obvious vegetation stress and/or damage that was evident around specific sites. The data will be utilized by the region as part of an overall assessment of possible permit violations, adequacy of facility operating procedures, and identification of suspected illicit discharges or dumping of materials.

An index of facilities covered by this report appears on page 3 with site locations identified on the Facilities Site Index Map (page 5). Multiple industrial facilities have been identified on Sites 1, 3, and 13 due to the concentration of several complexes. Each site is preceded by a photo analysis detailing the activities at the facility followed by photographs with acetate overlays to display the analysis results.

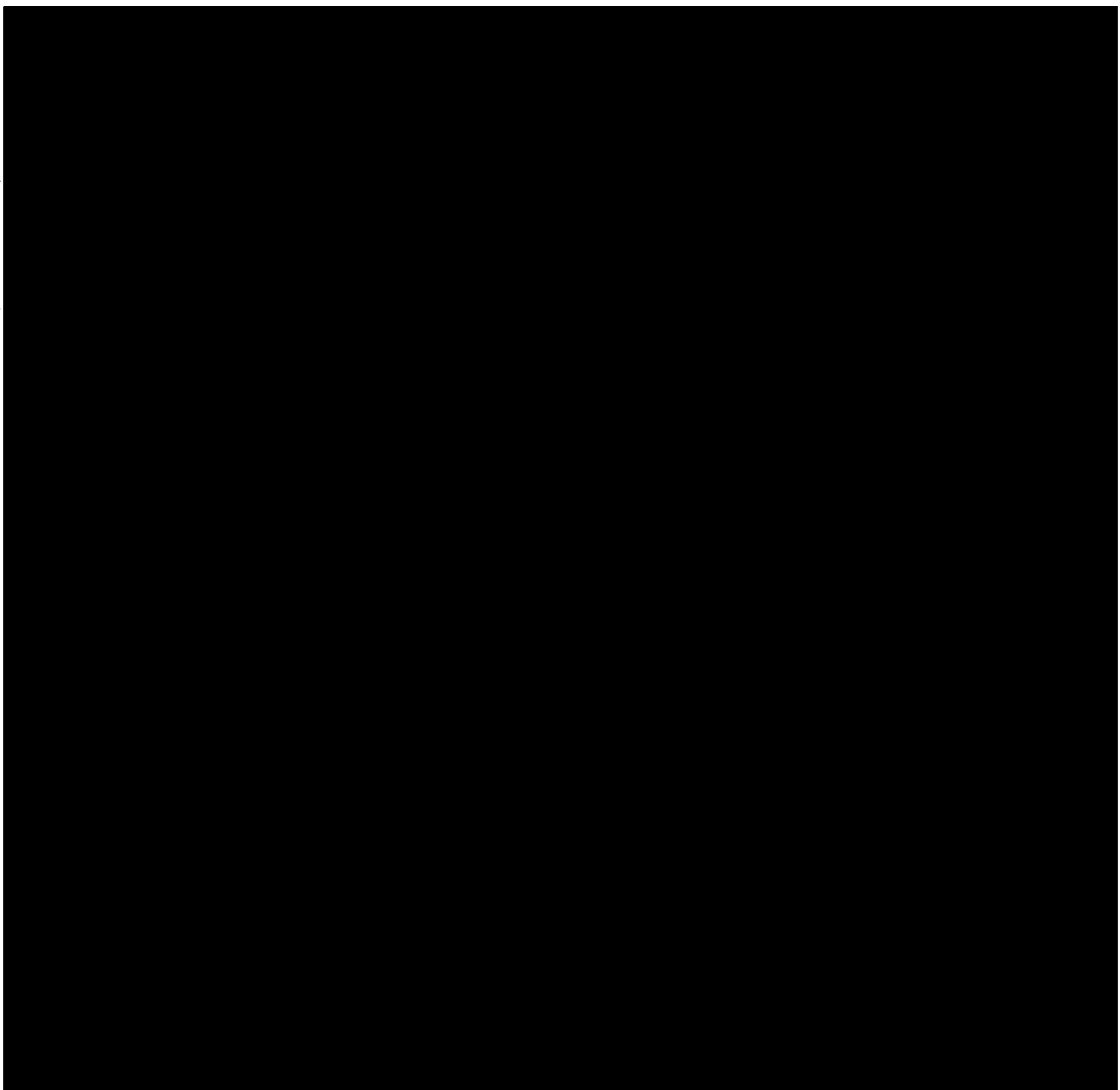
Analysis of the many varied sites revealed most product storage tanks were adequately contained. However, small product spills, in addition to several storage/processing tanks were identified and annotated as uncontained or lacking adequate secondary containments. Vegetation damage/stress was also noted adjacent to several facilities and landfill sites. The long term severity of damage could not be assessed but the visible extent of damage to surrounding vegetation was delineated. A detailed site analysis of the Kansas Industrial Environmental Services, Inc., (Site 15), was possible due to the availability of color infrared photography acquired over the site approximately one year prior to the 1979 mission.

Analysis of four requested facilities, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] was not accomplished due to a combination of unfavorable weather conditions at the time of data acquisition and the unavailability of the precise location of several sites.

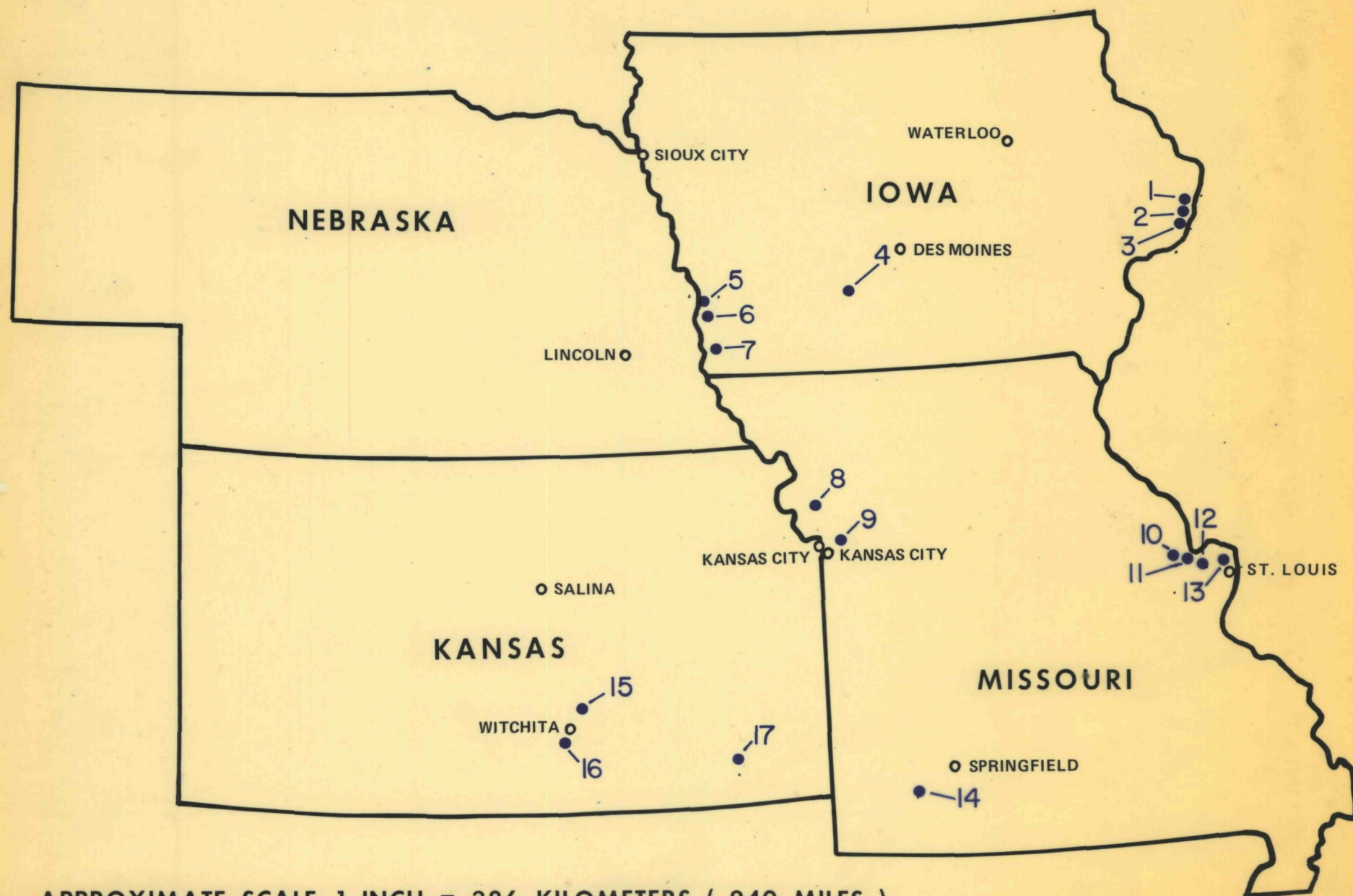


SITE INDEX (continued)

SITE NUMBER	FACILITY	LOCATION	PAGE
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14	Syntex Agribusiness Company	Verona, Missouri	72
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WASTE DISPOSAL FACILITY SITE INDEX



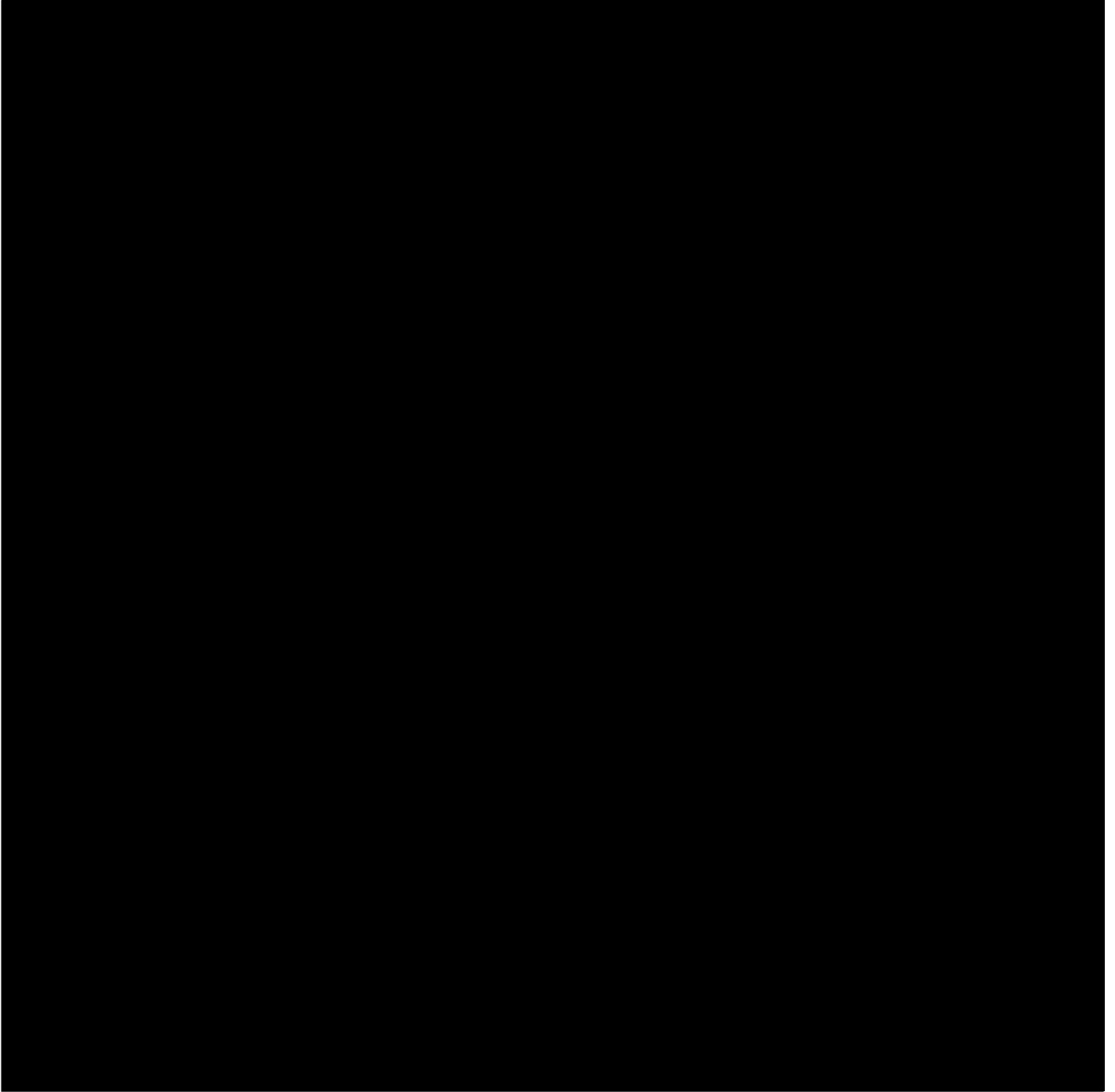
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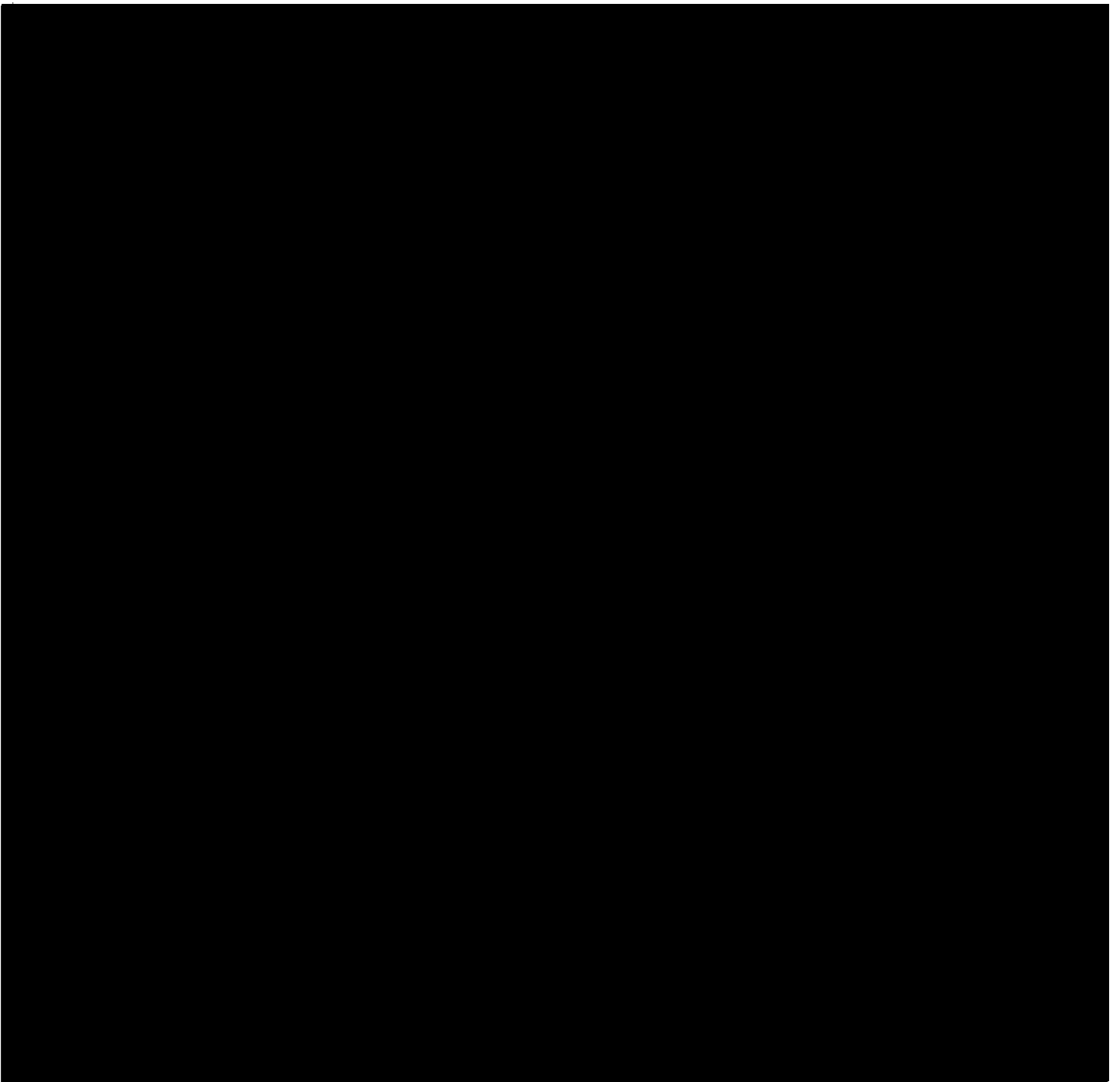
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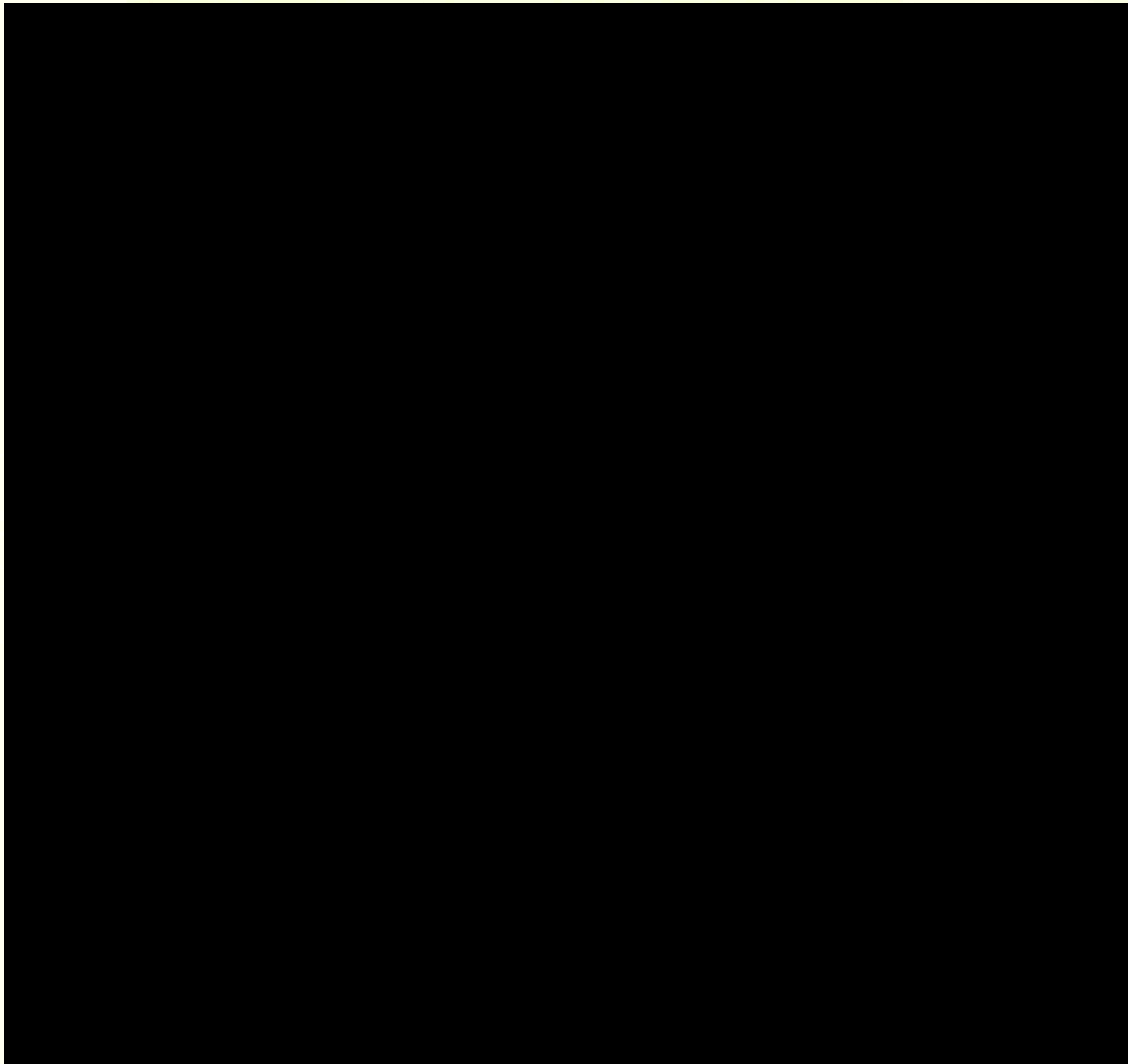
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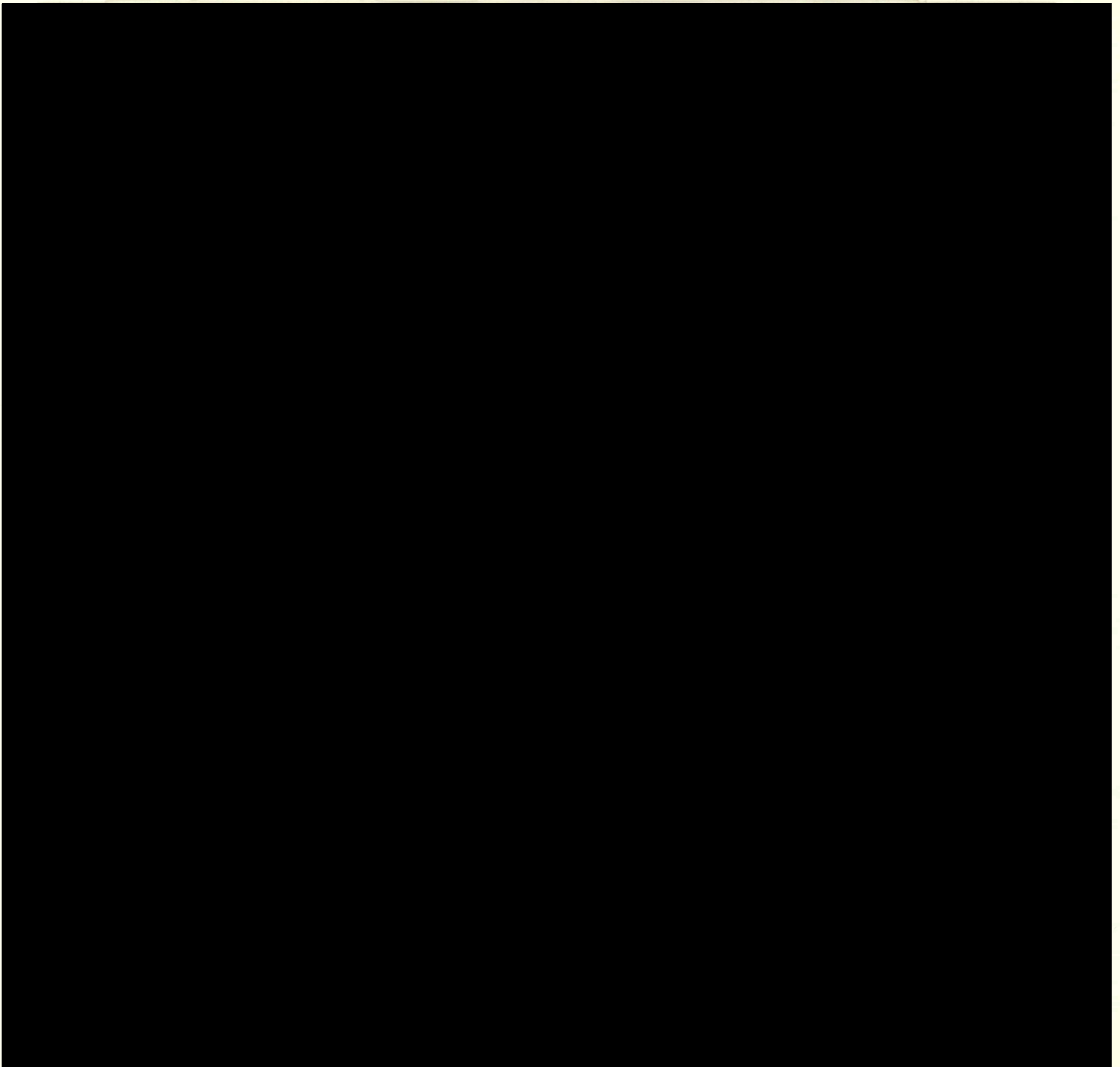
SITE NUMBER	FACILITY	PAGE
14	Syntex Agribusiness Company, Missouri	73

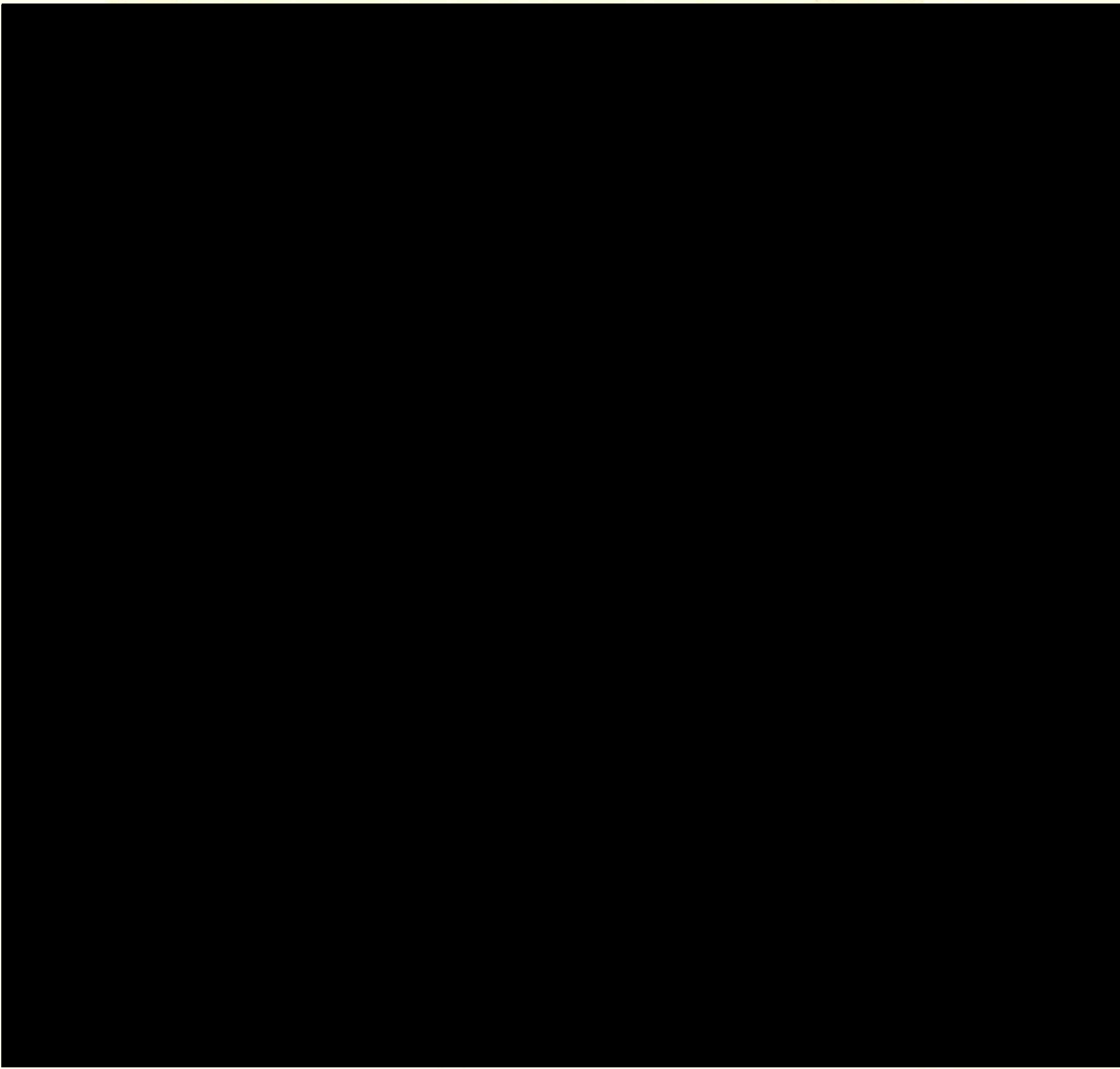
PHOTO ANALYSIS

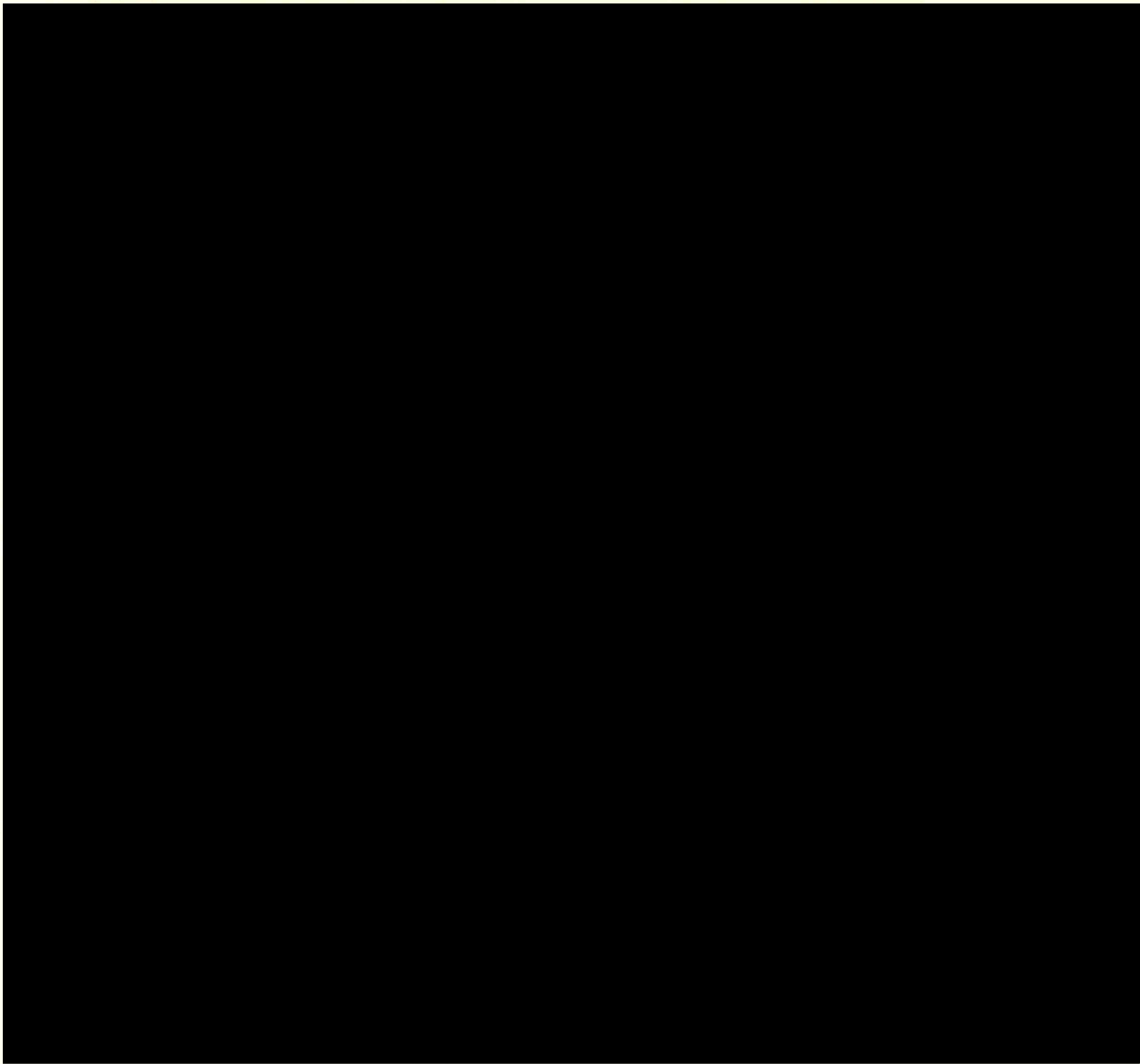












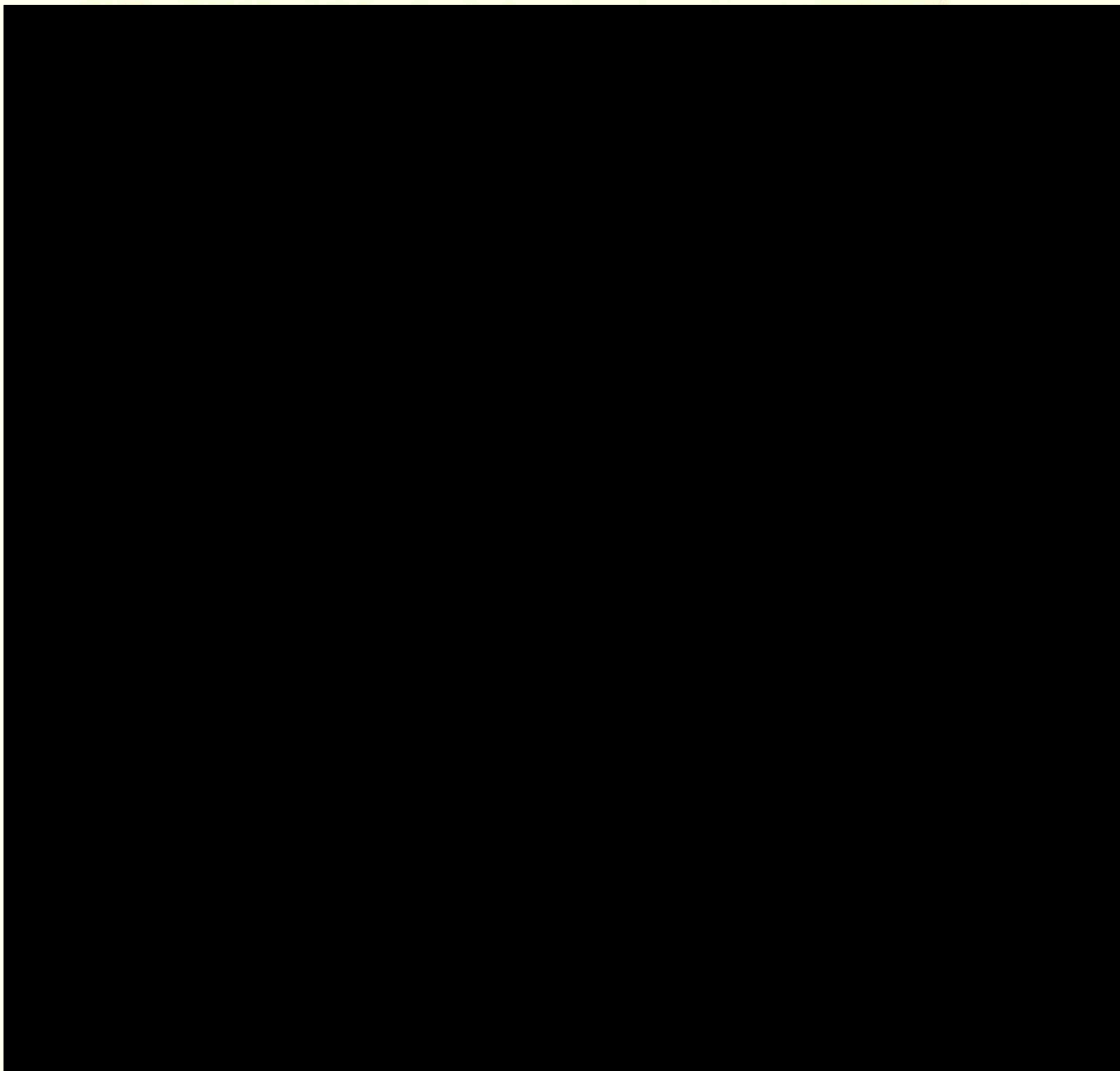
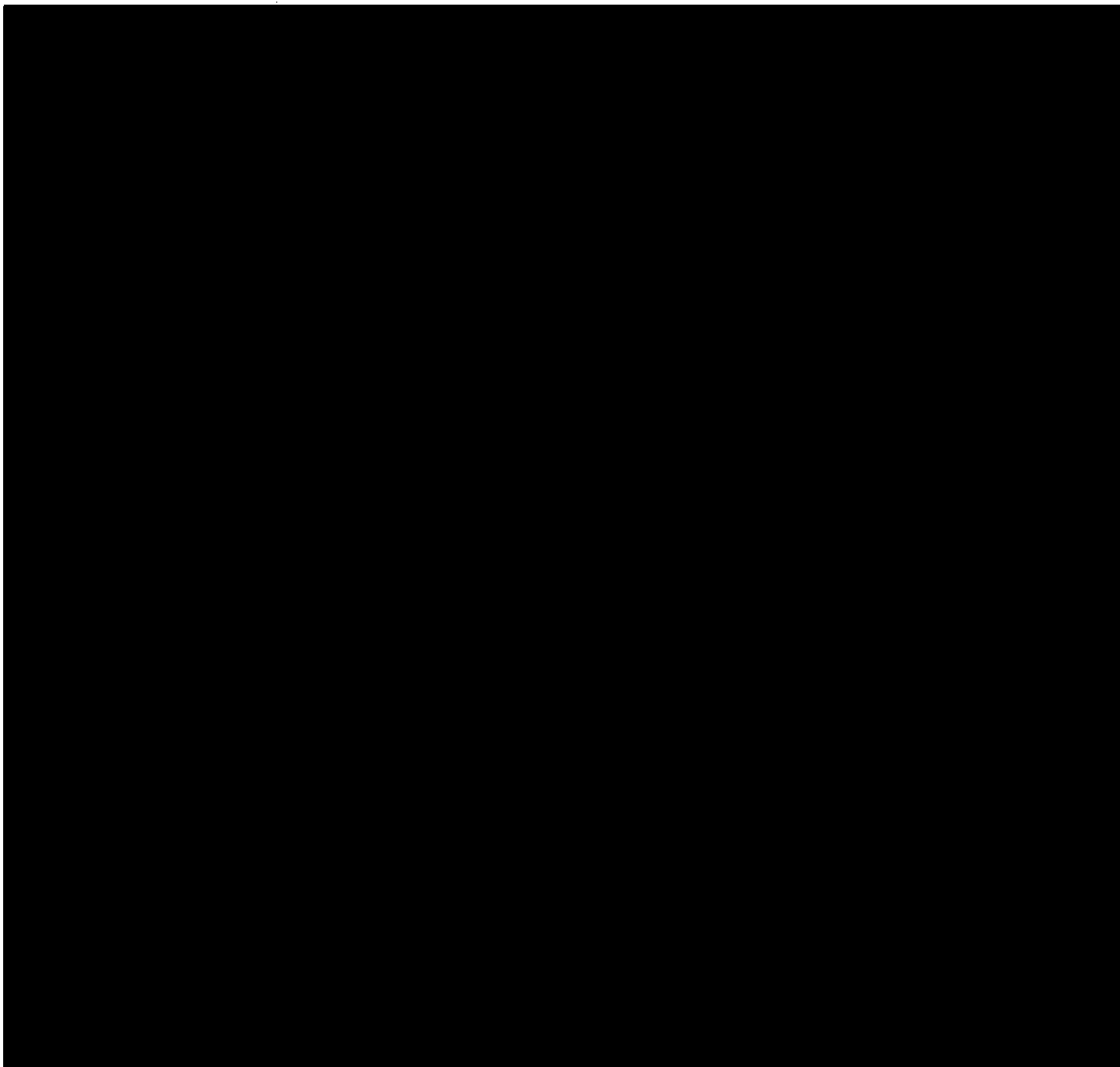
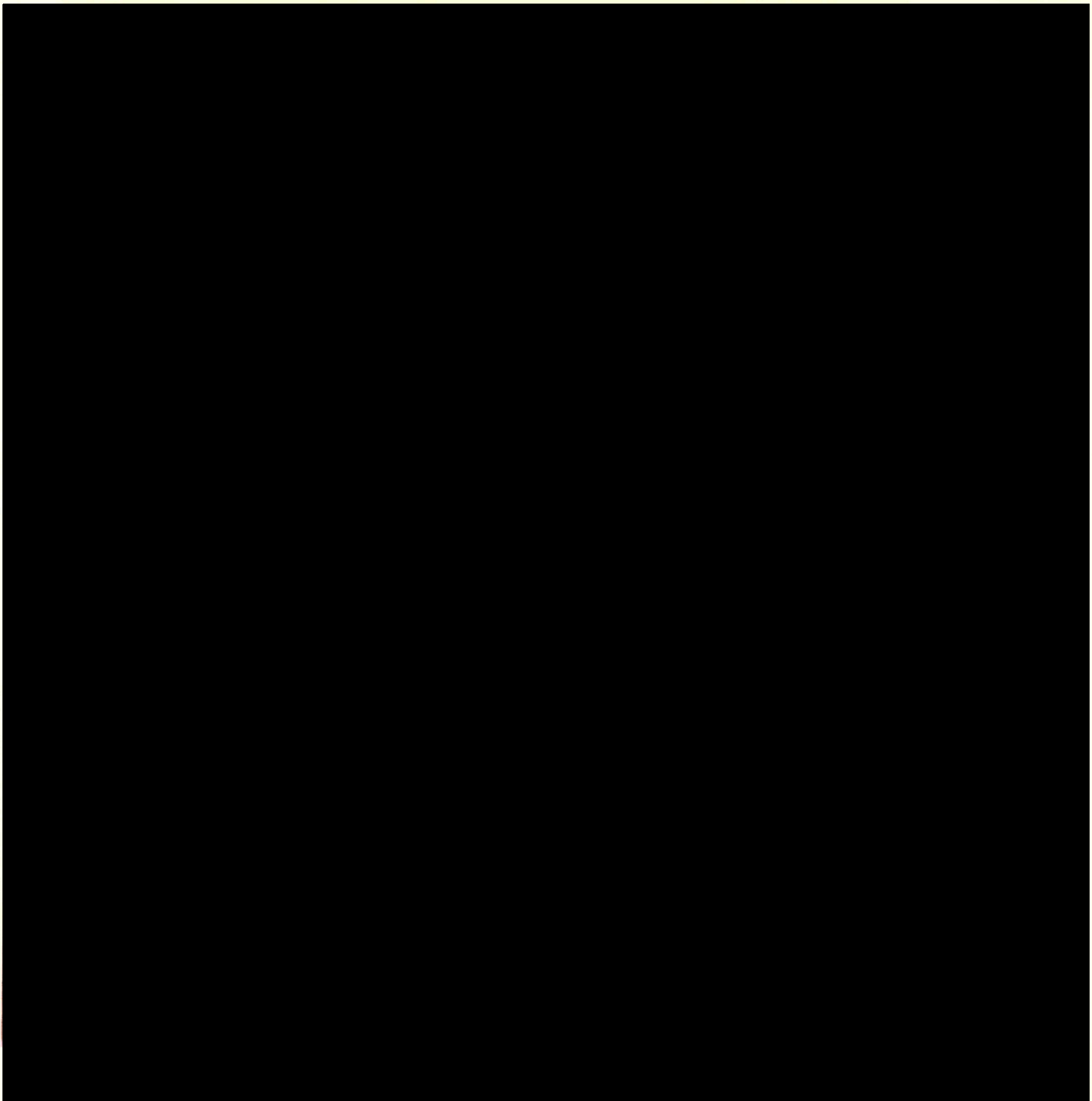


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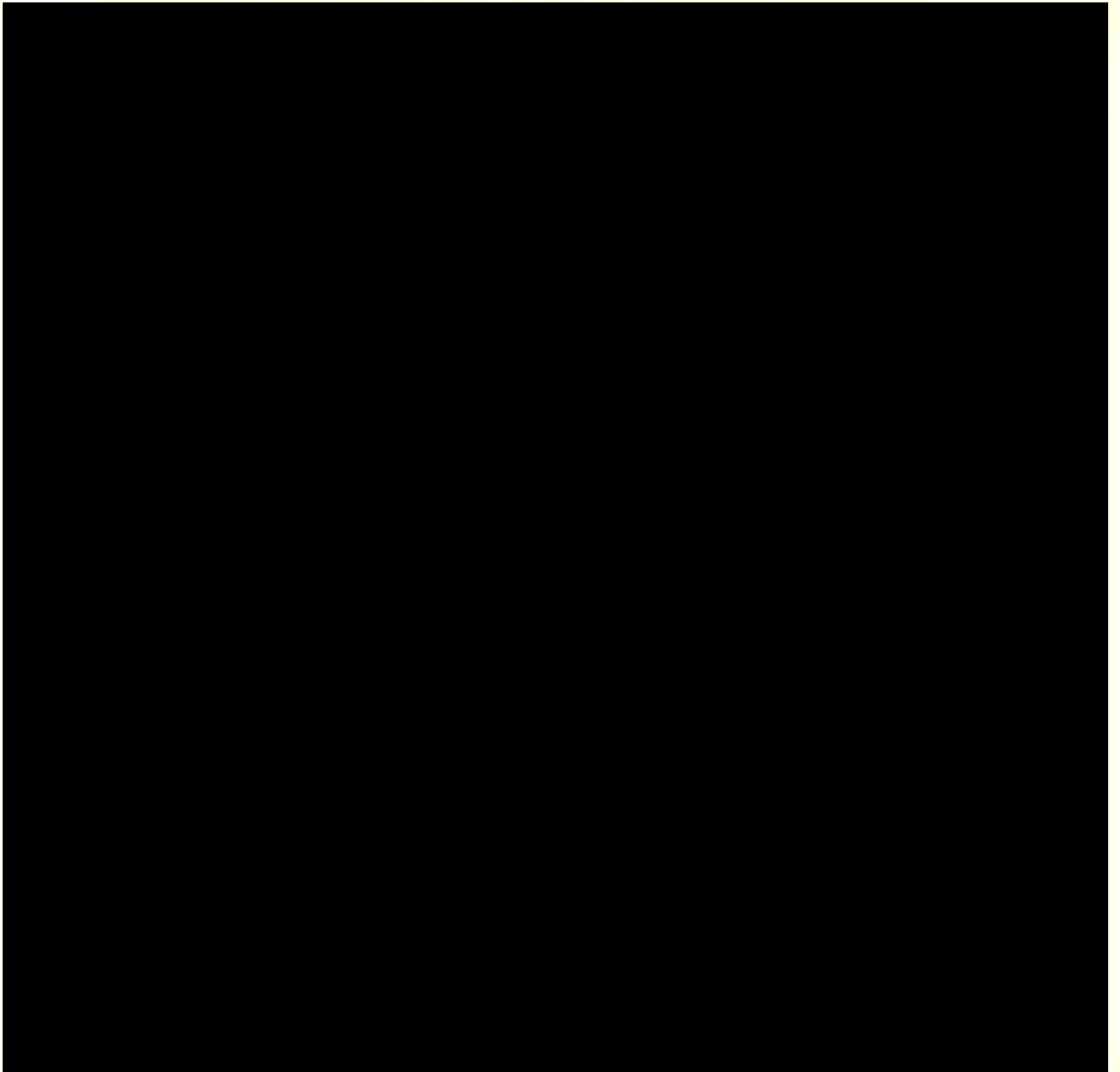
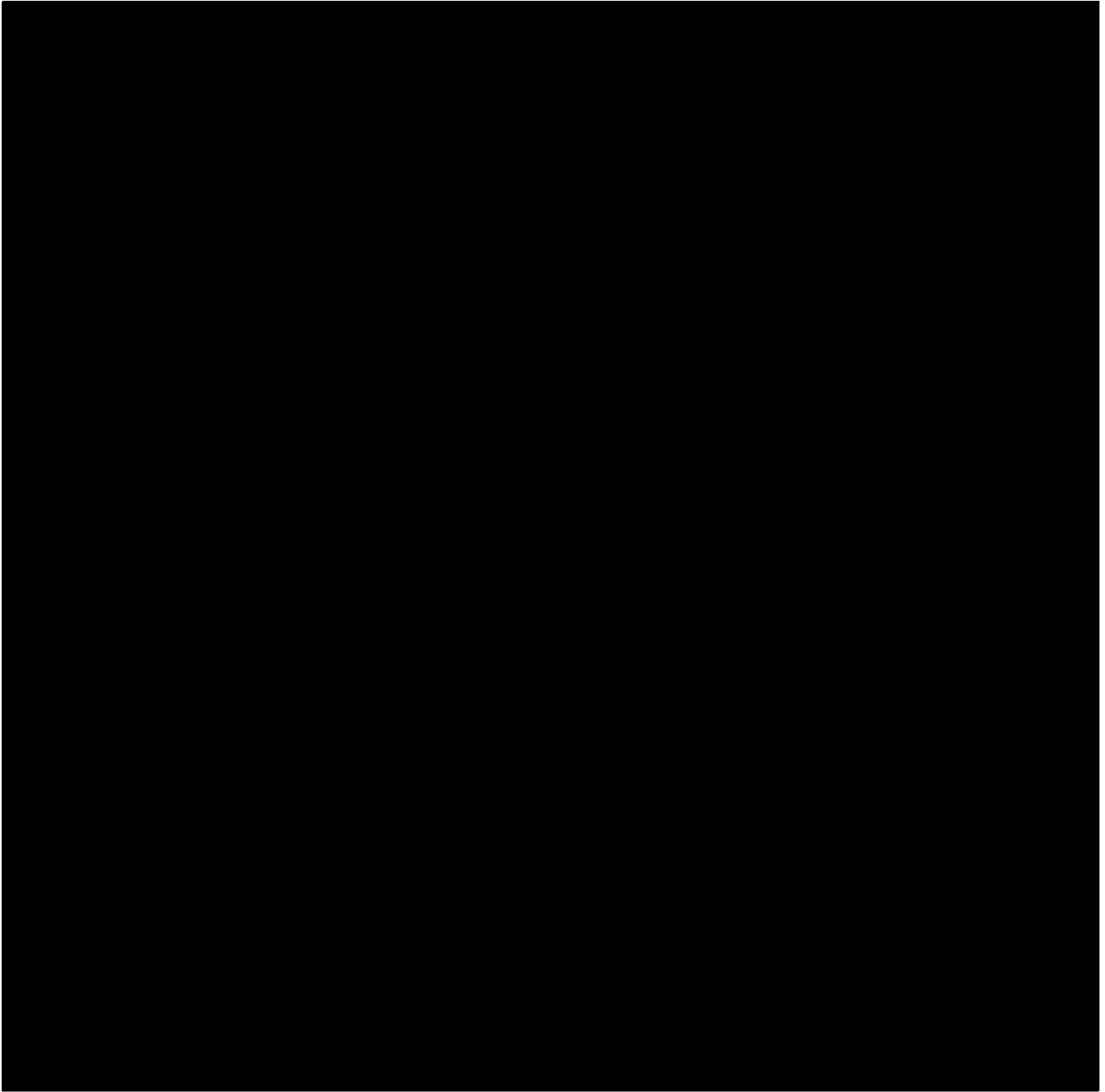
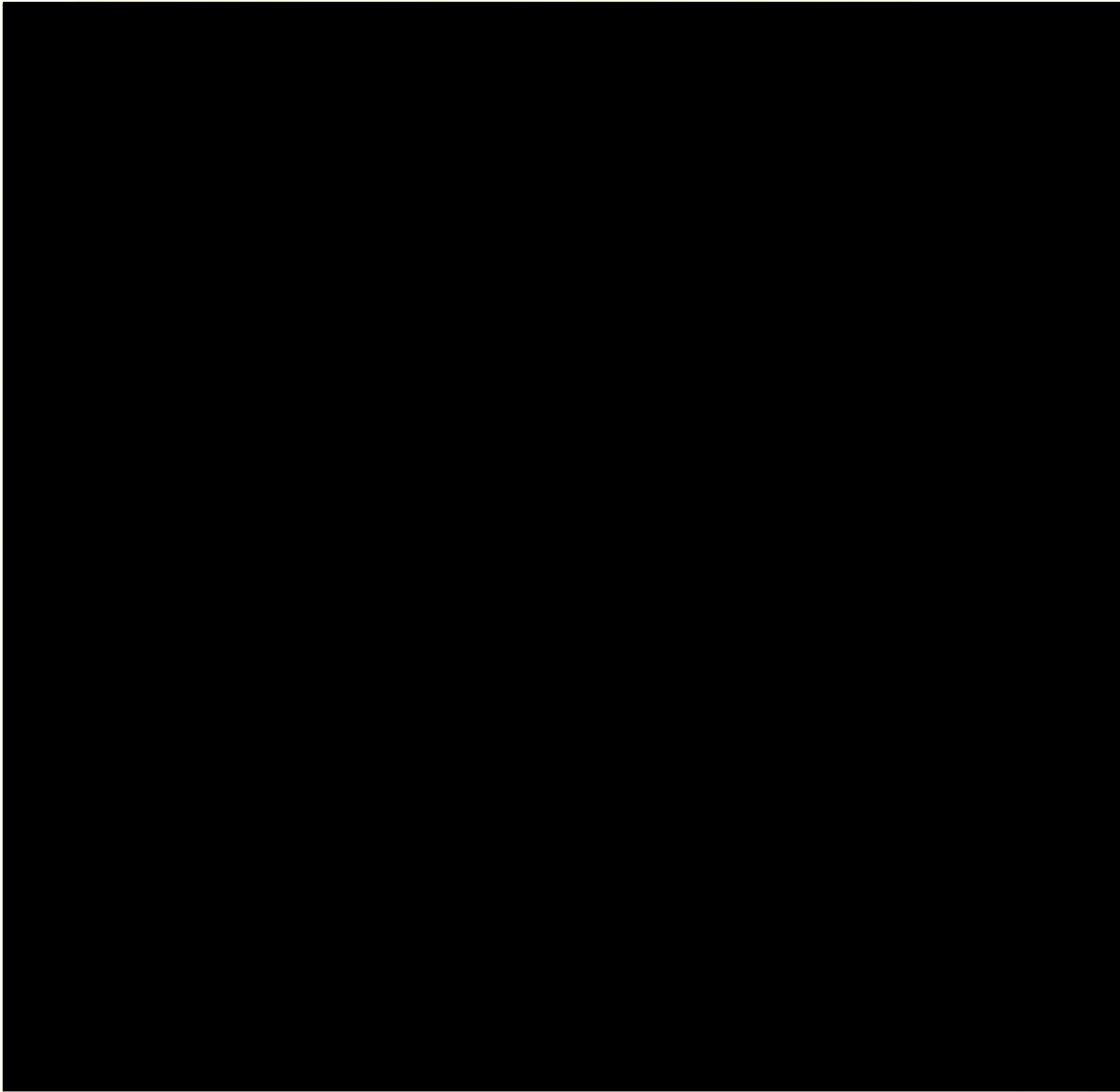
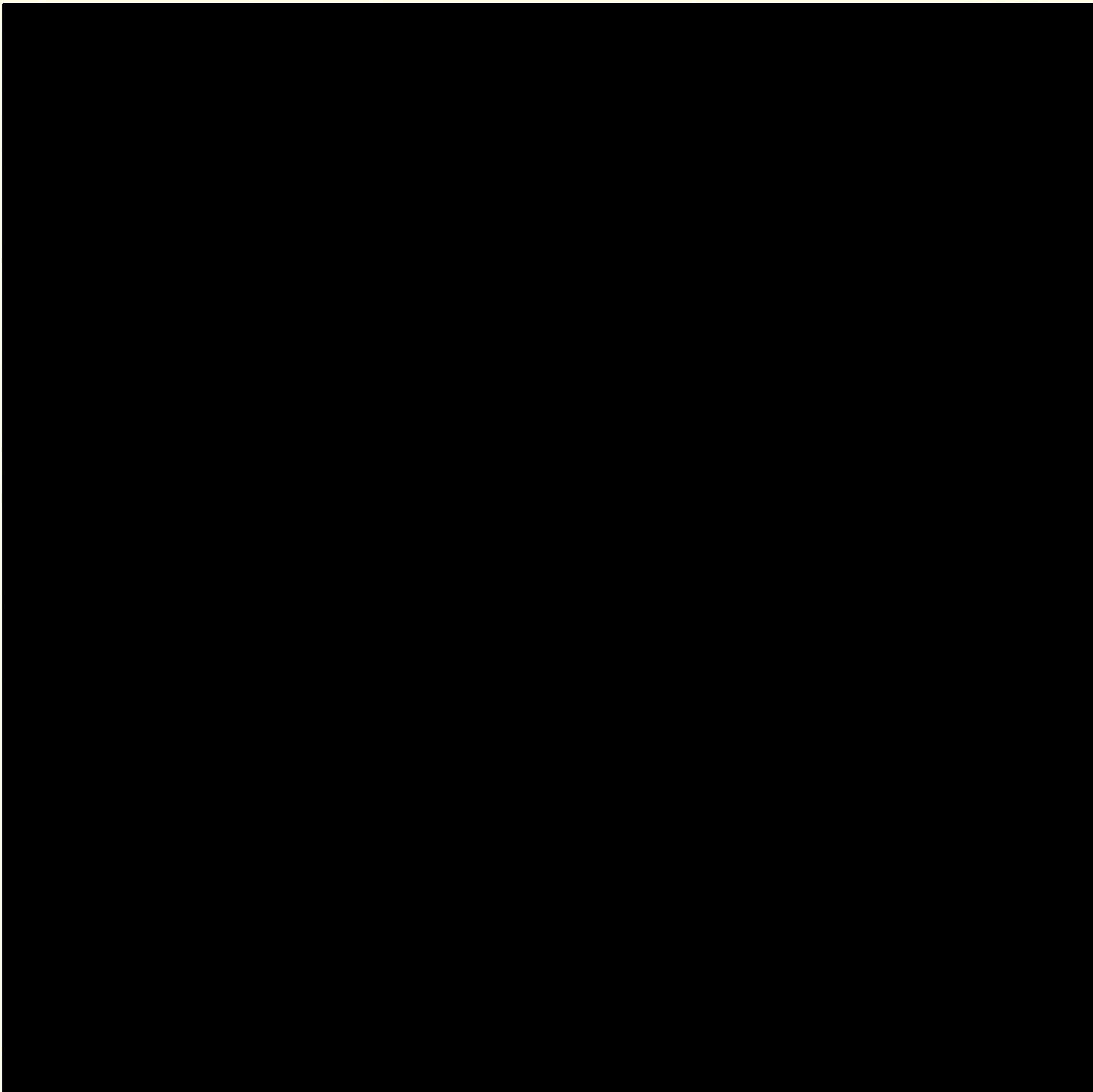


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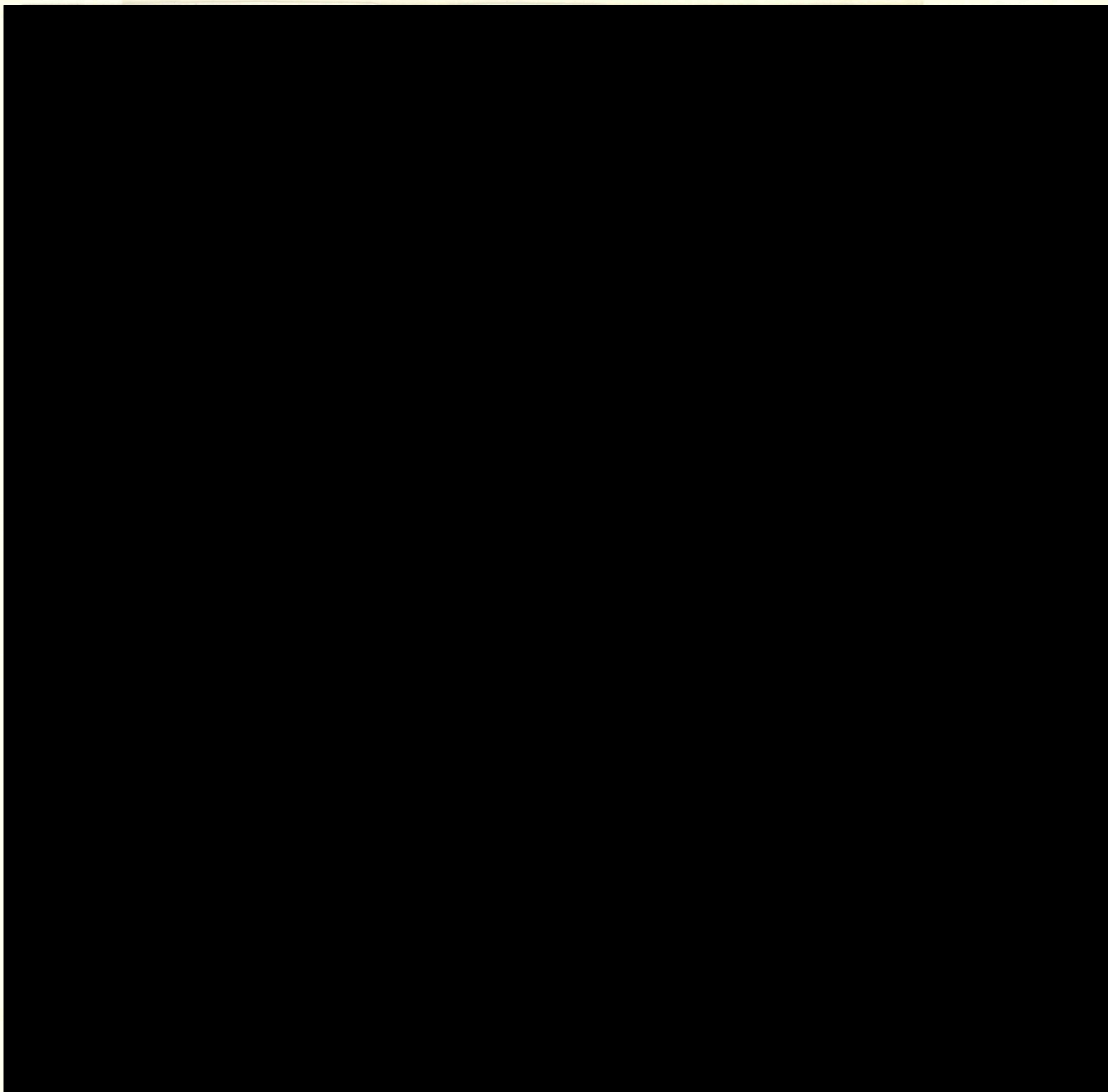
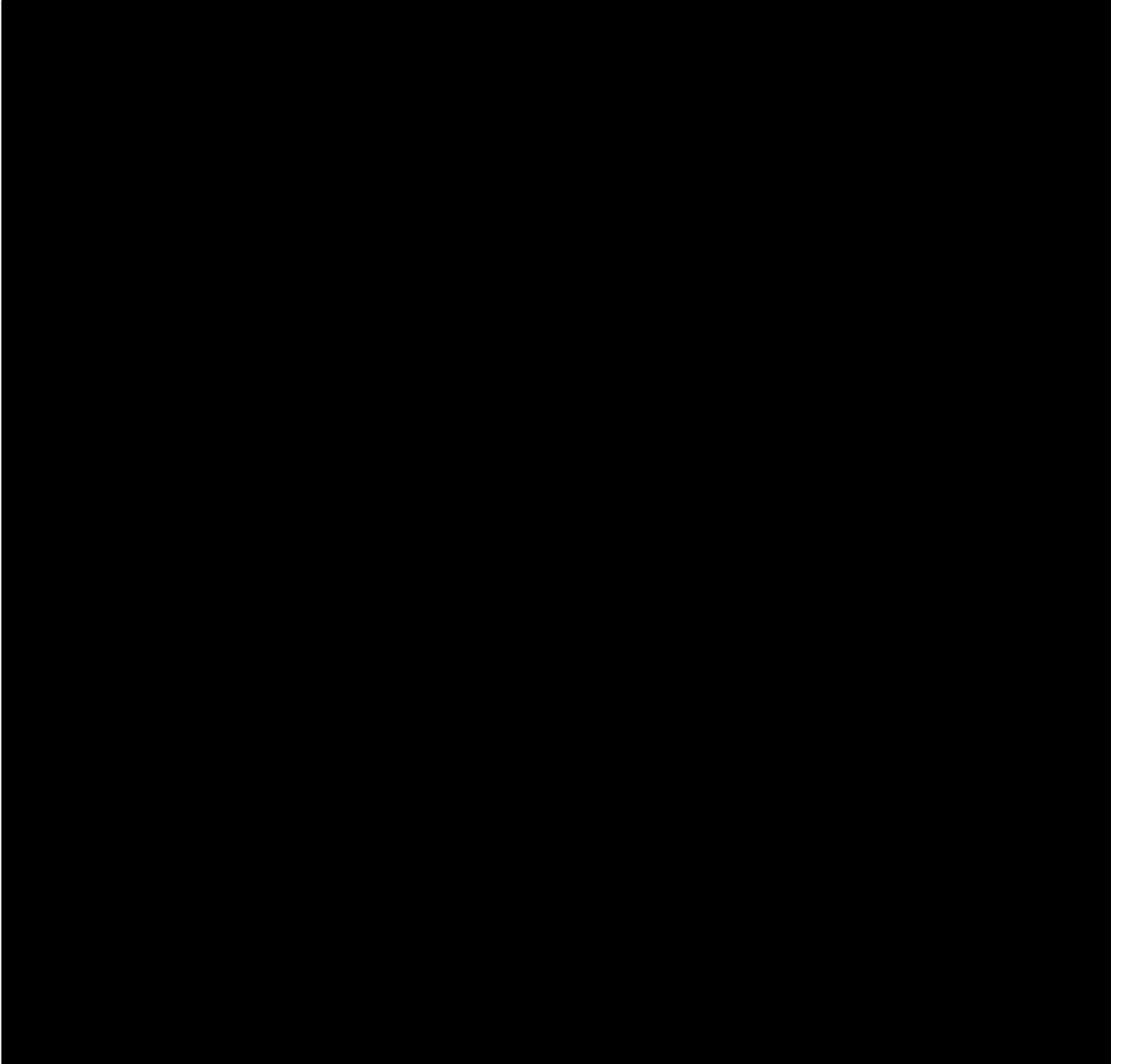


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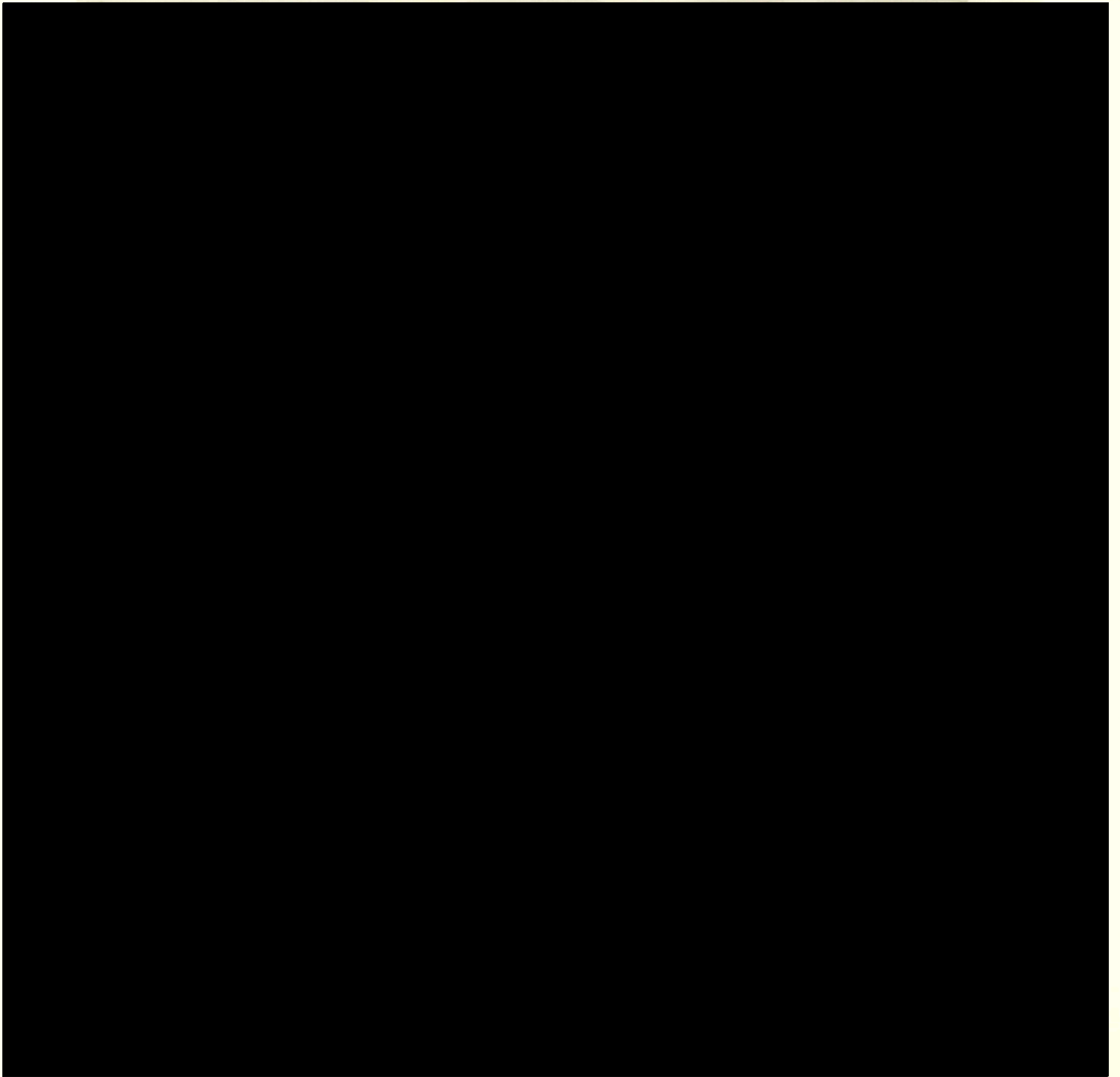
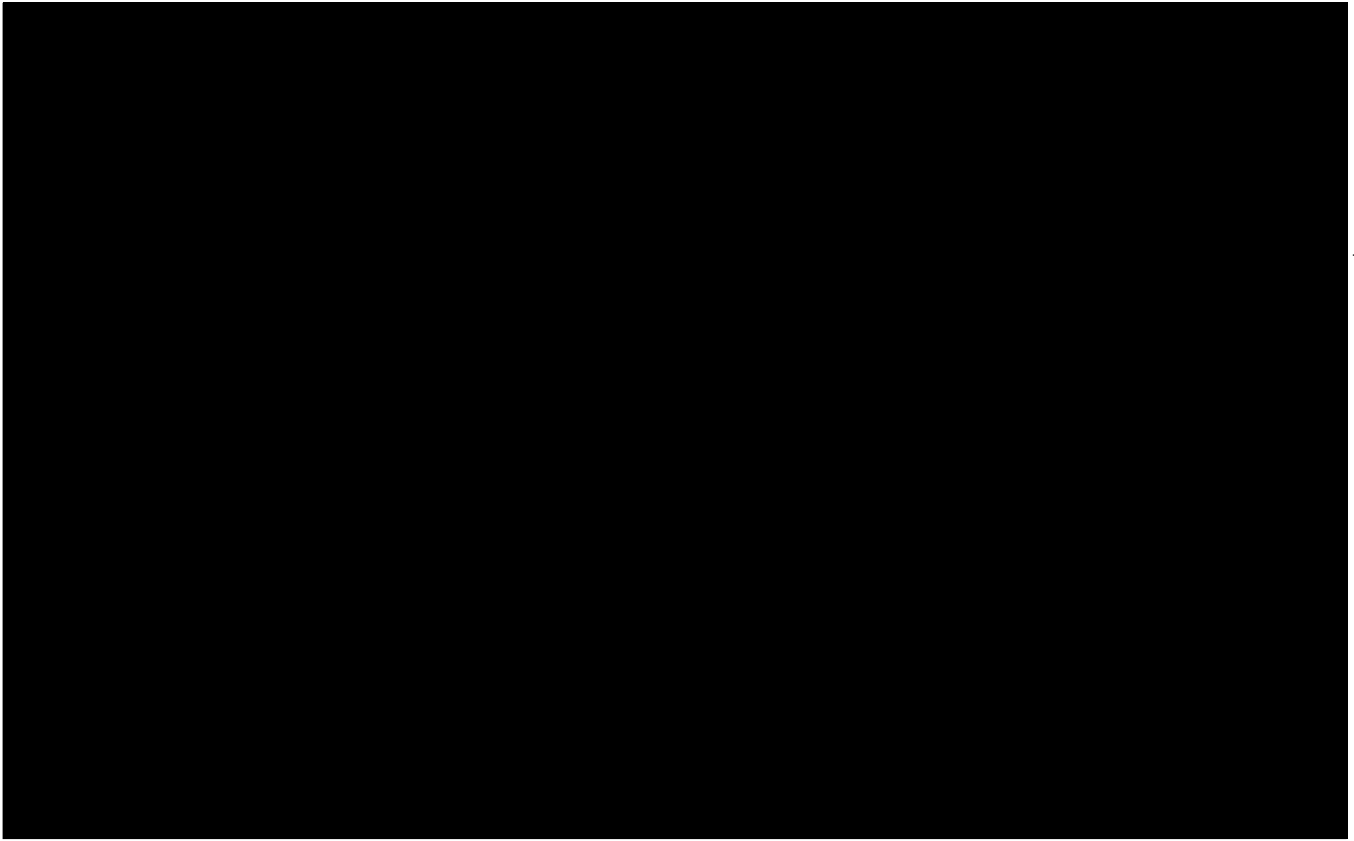
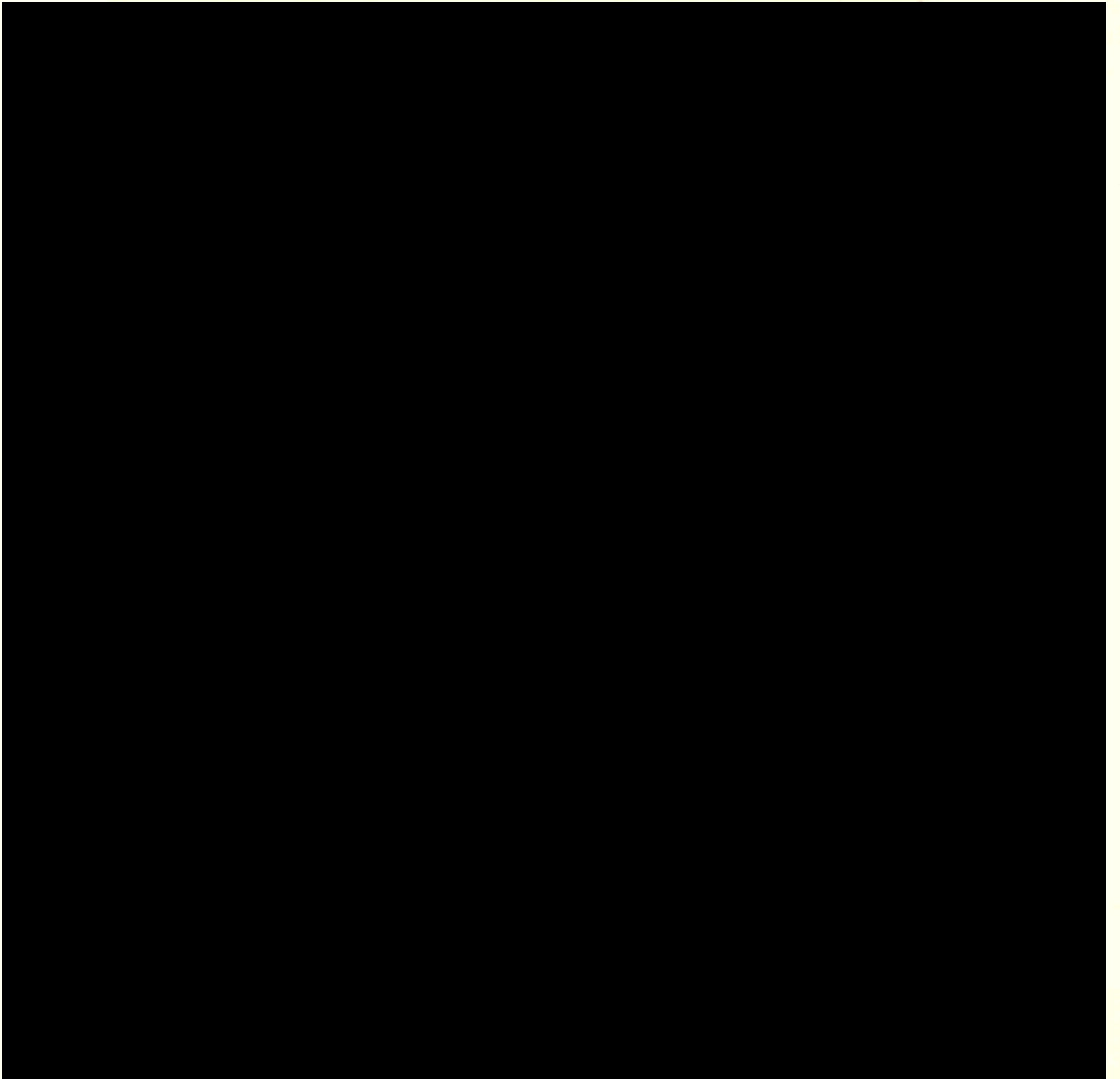


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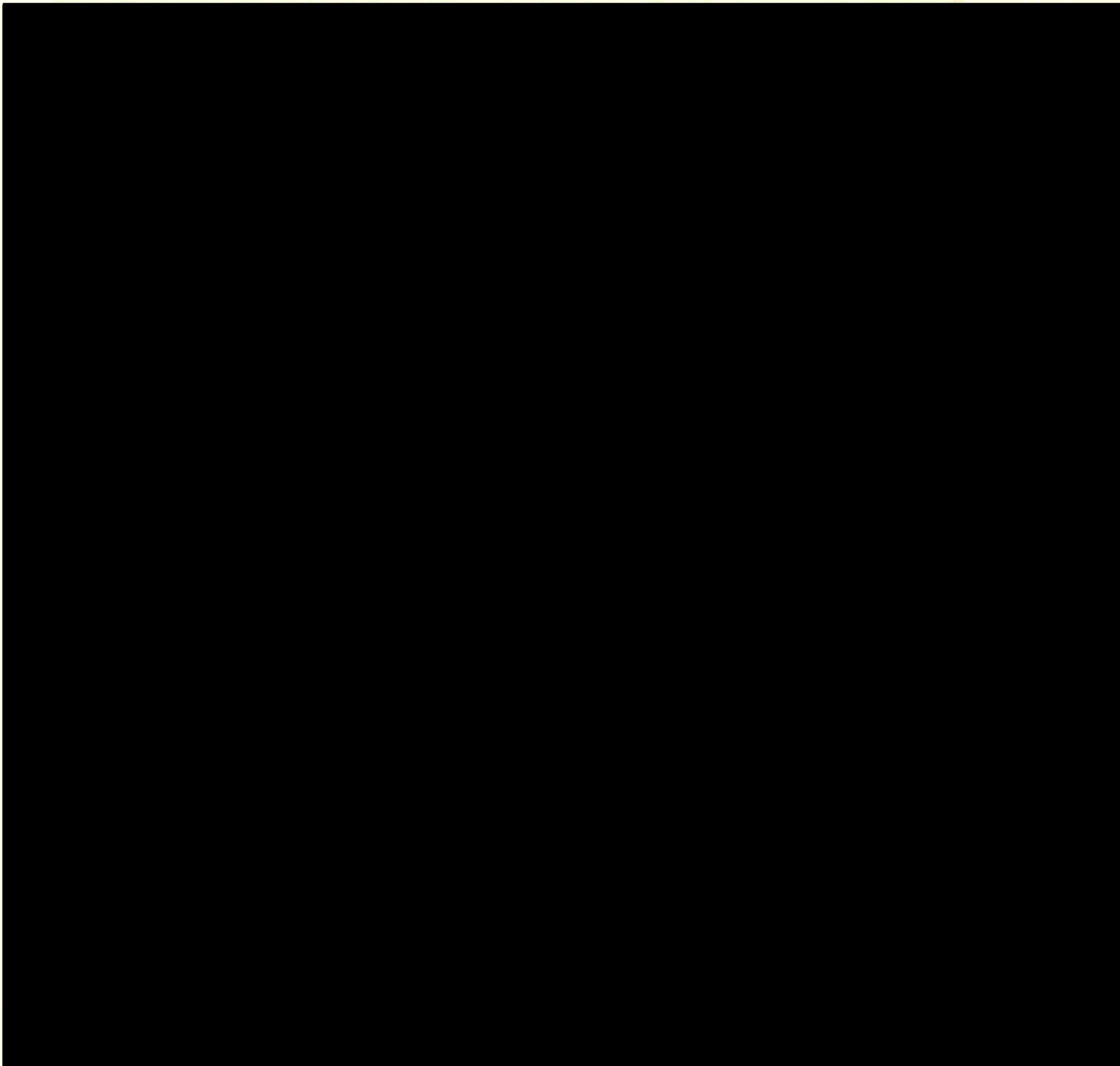
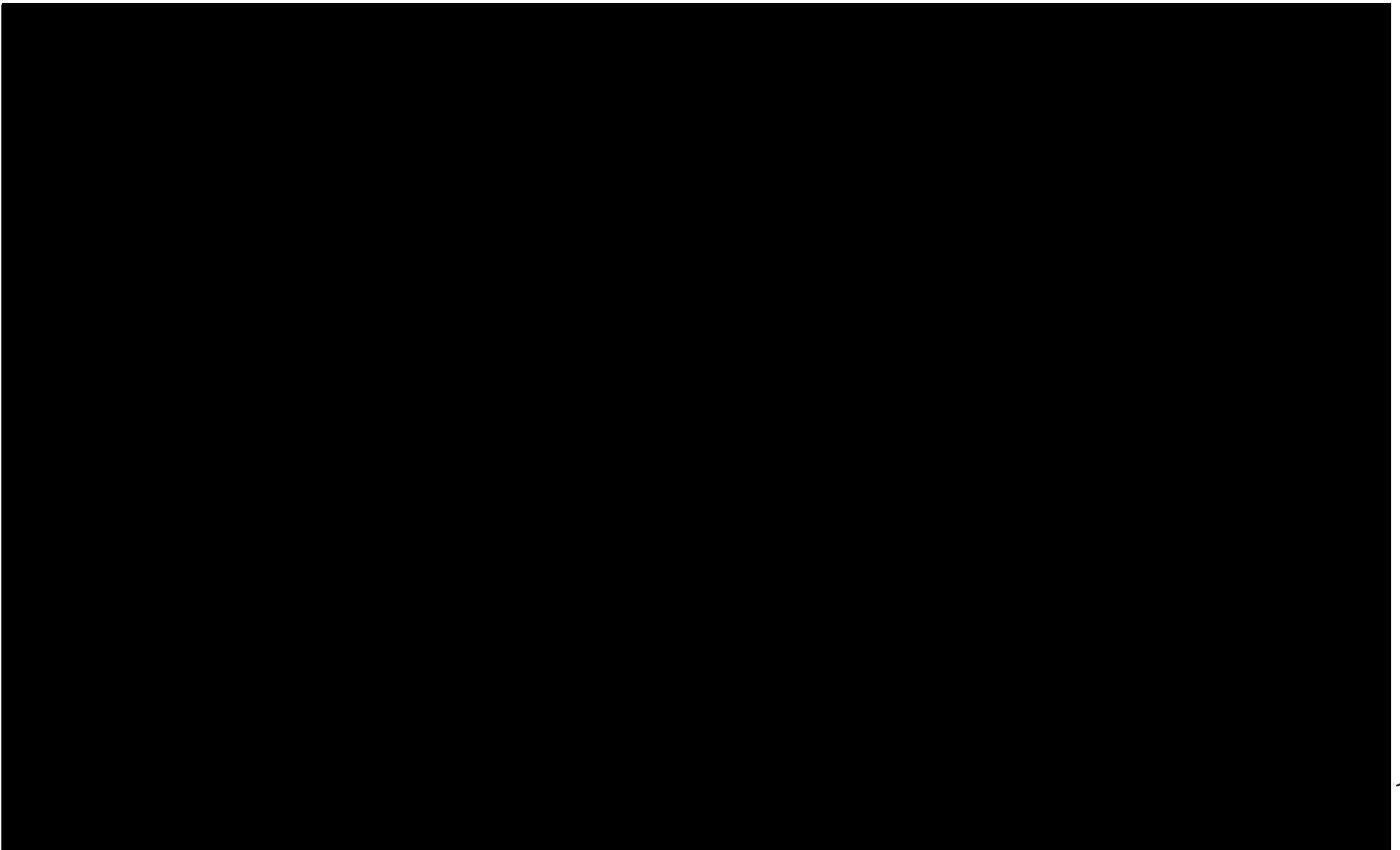
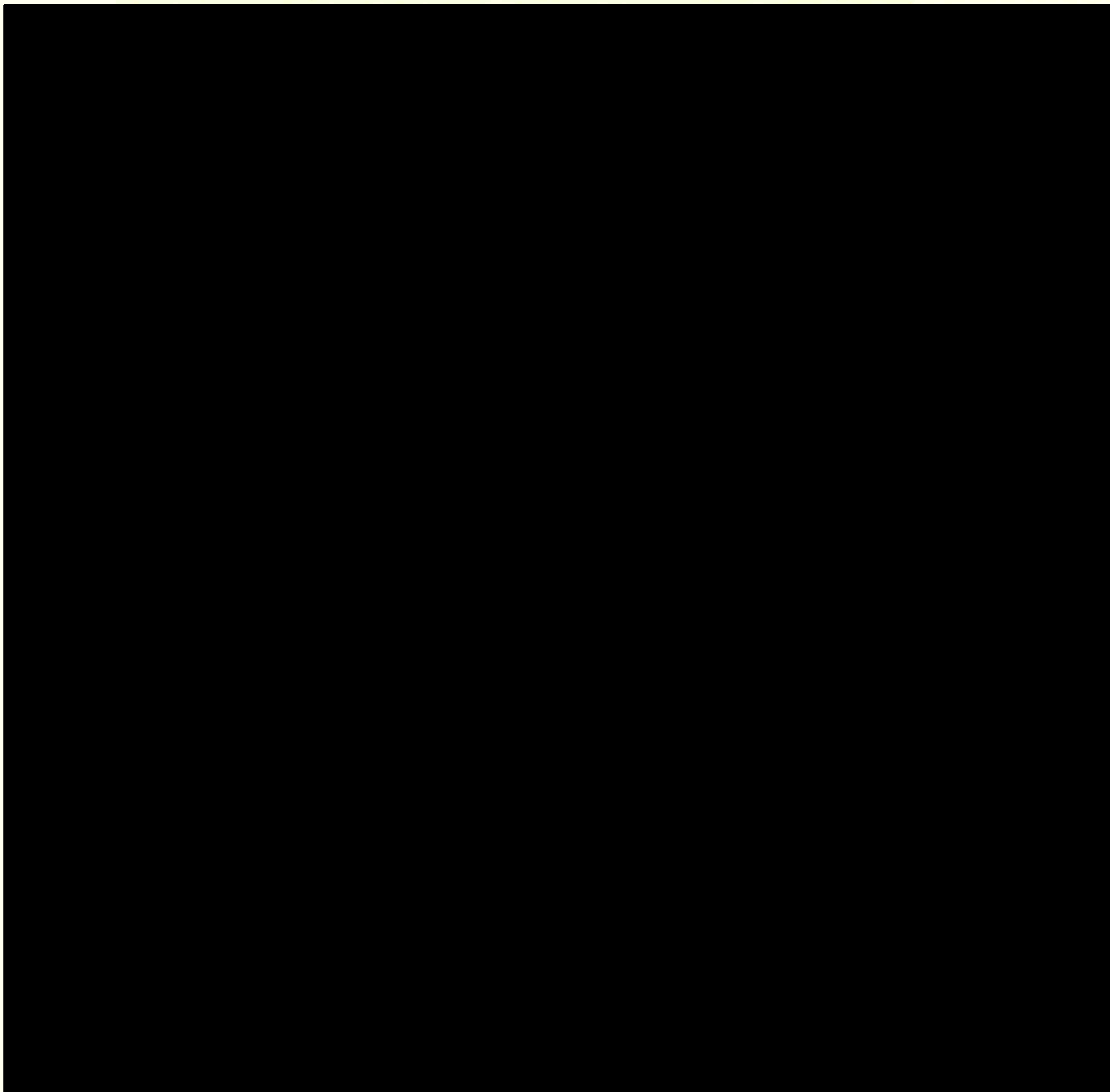


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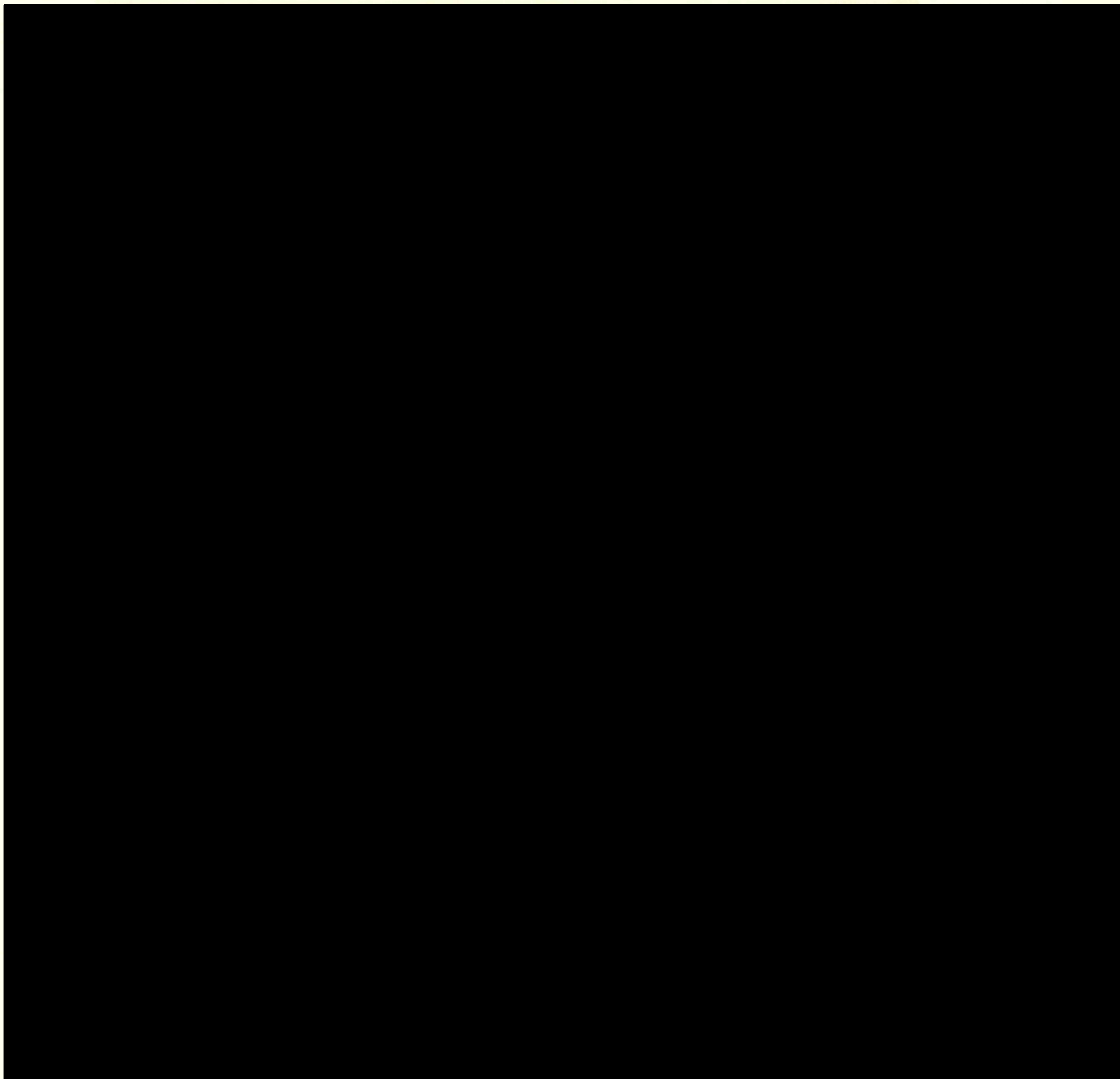
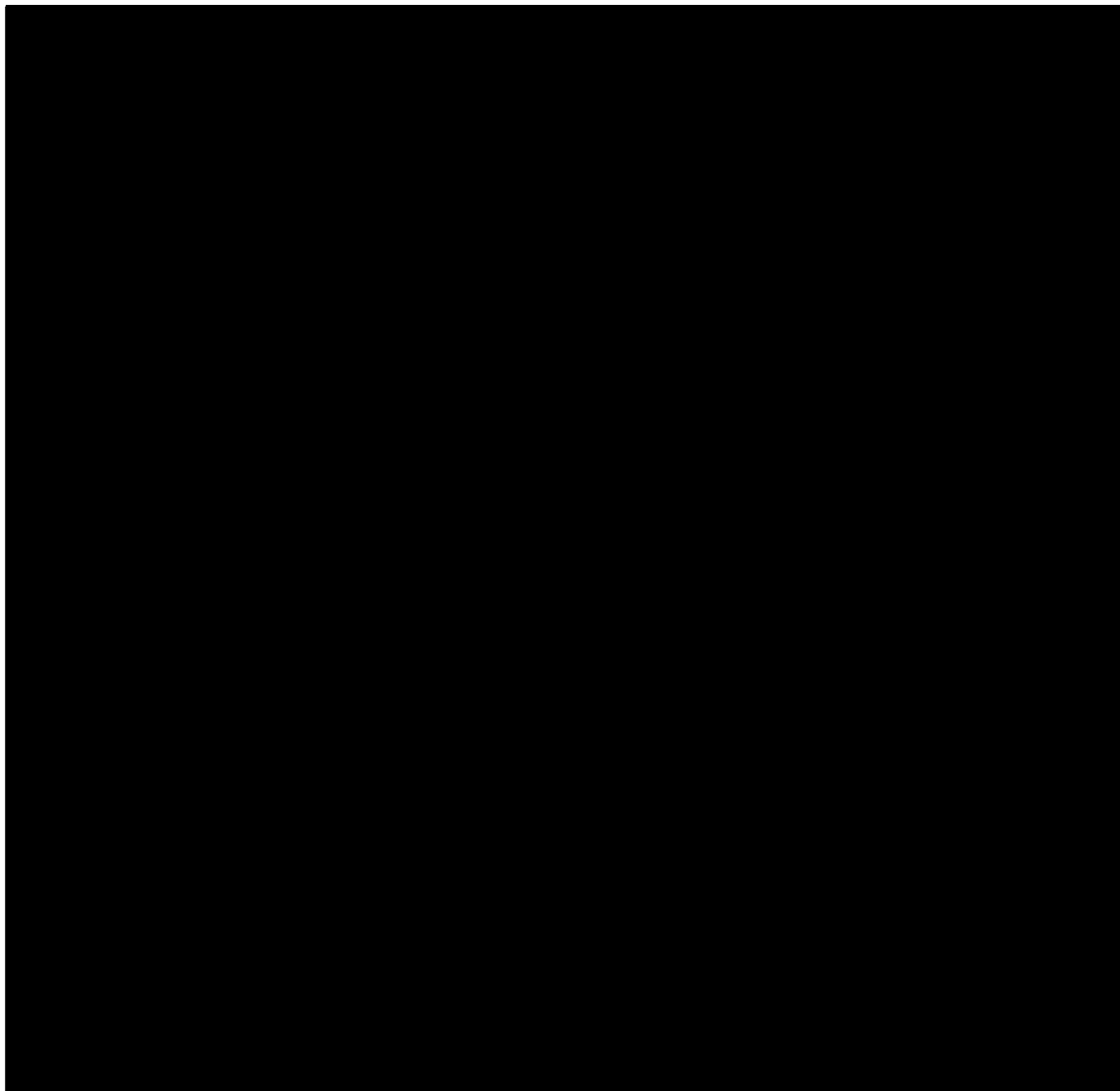
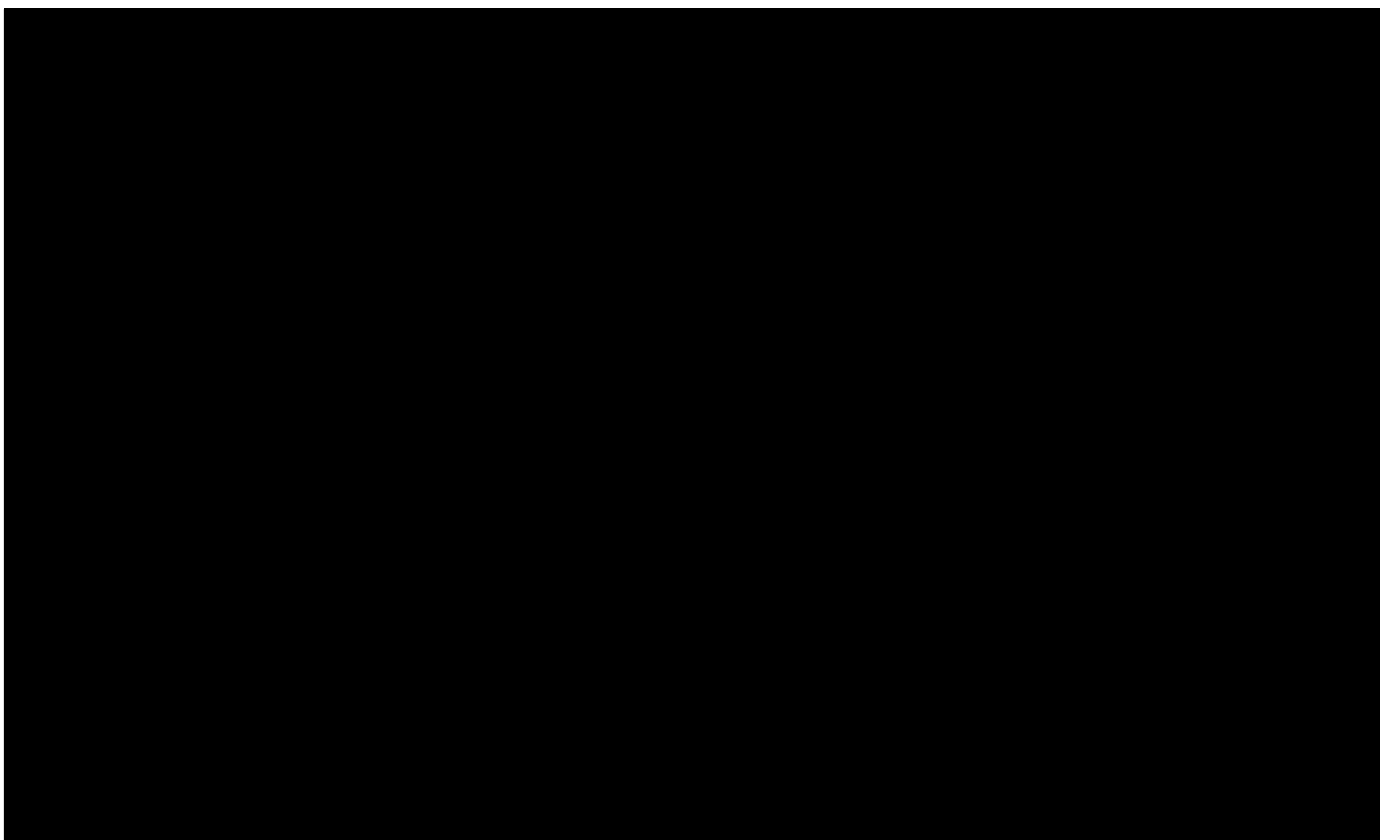
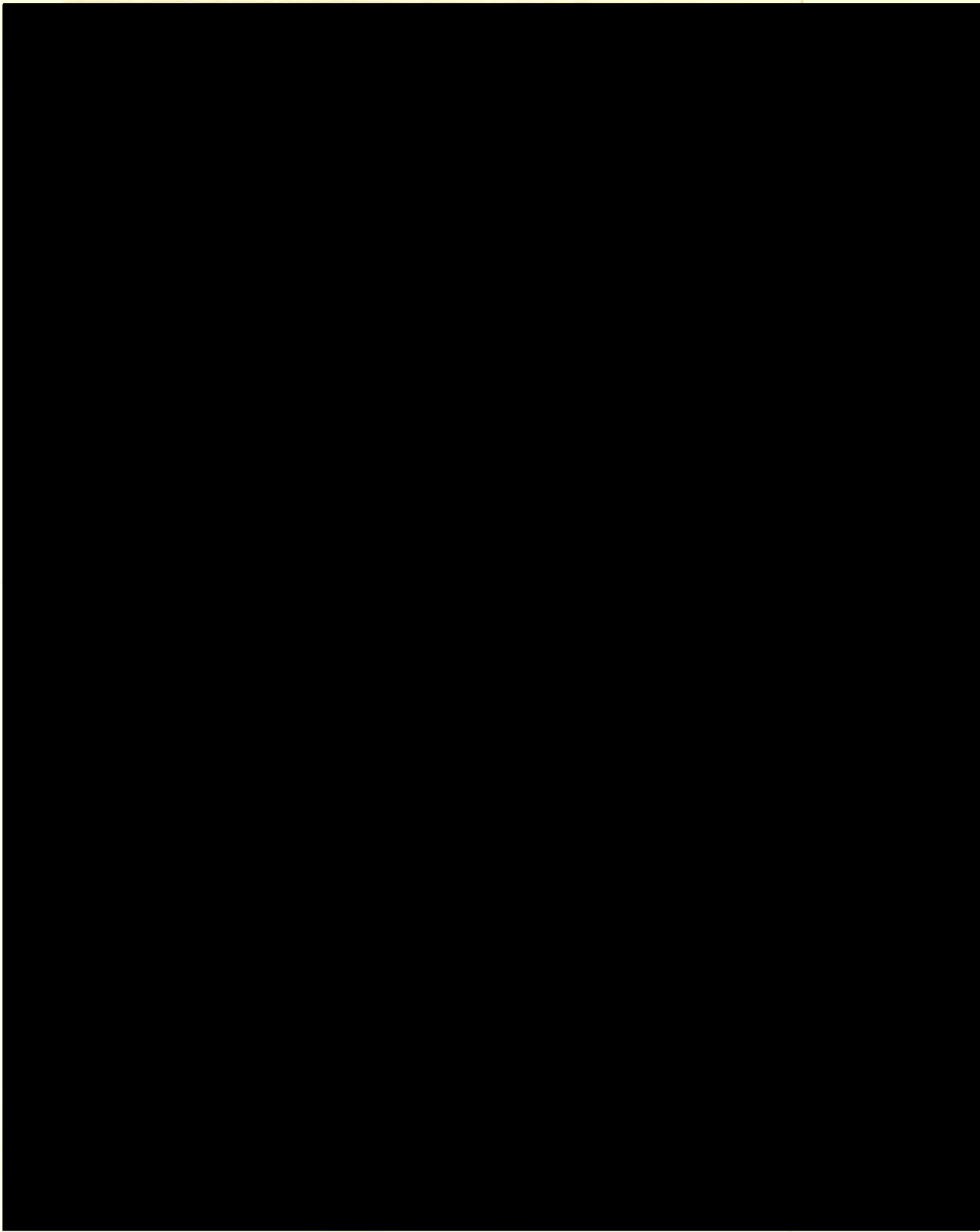
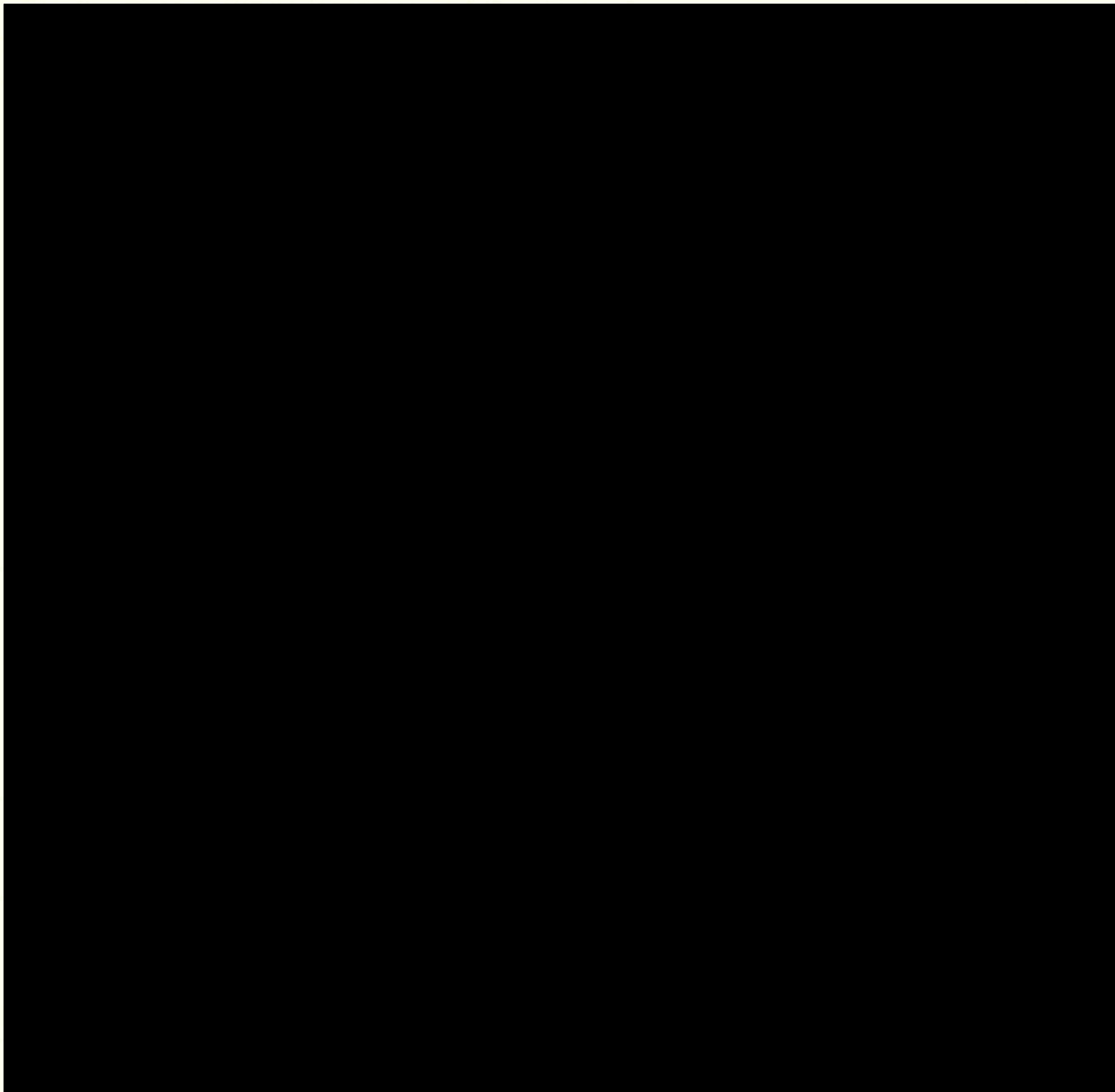


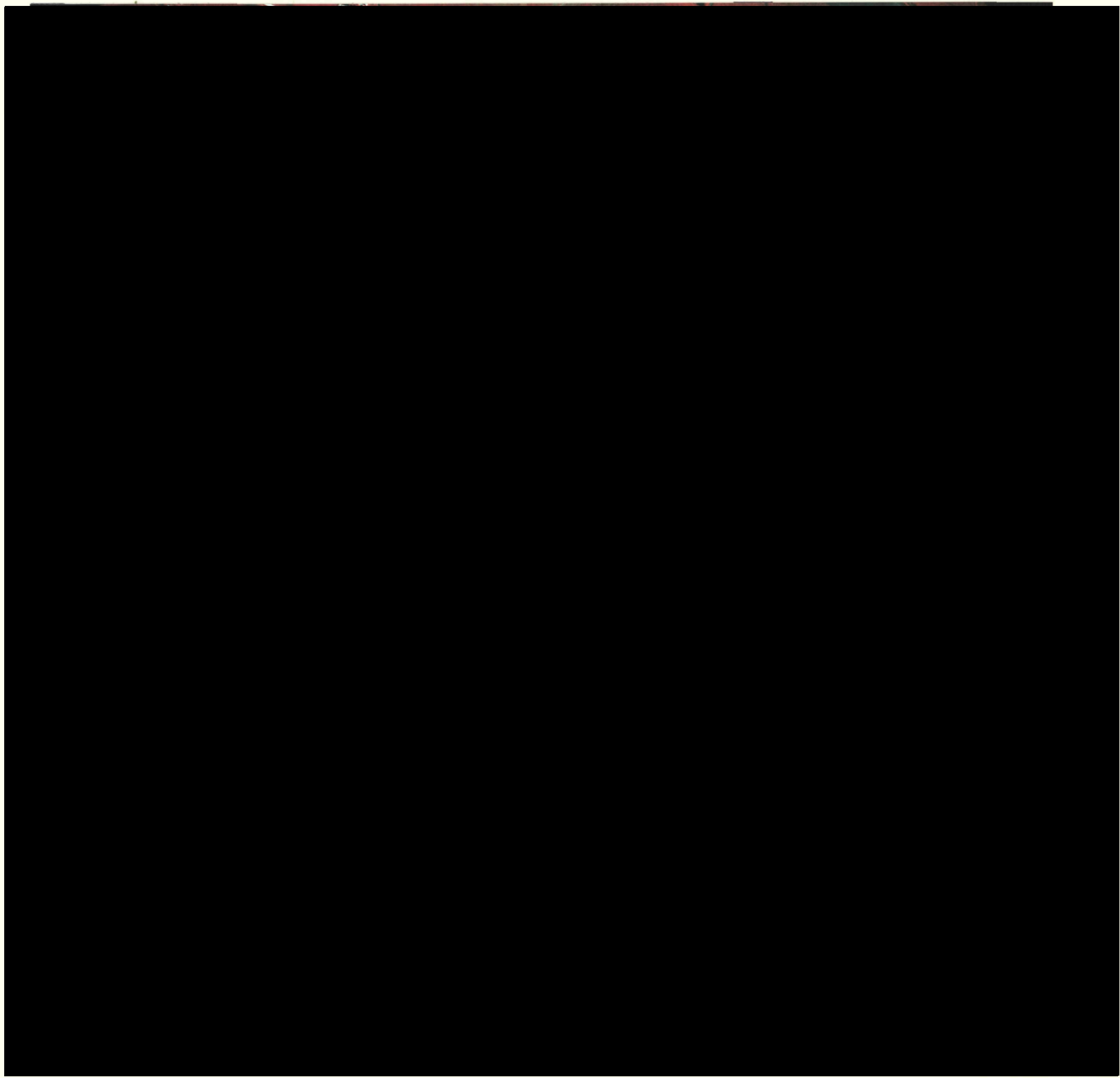
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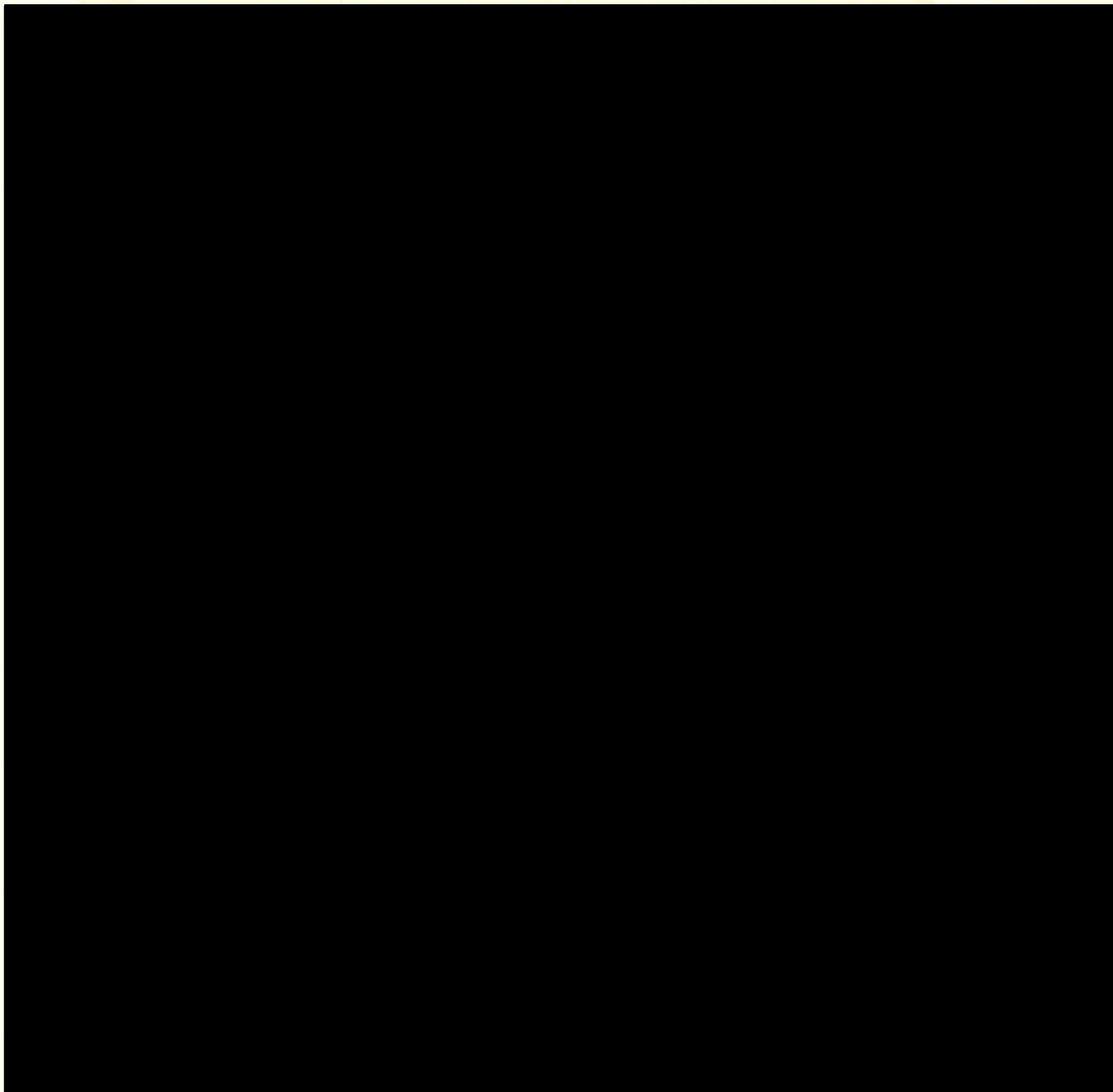


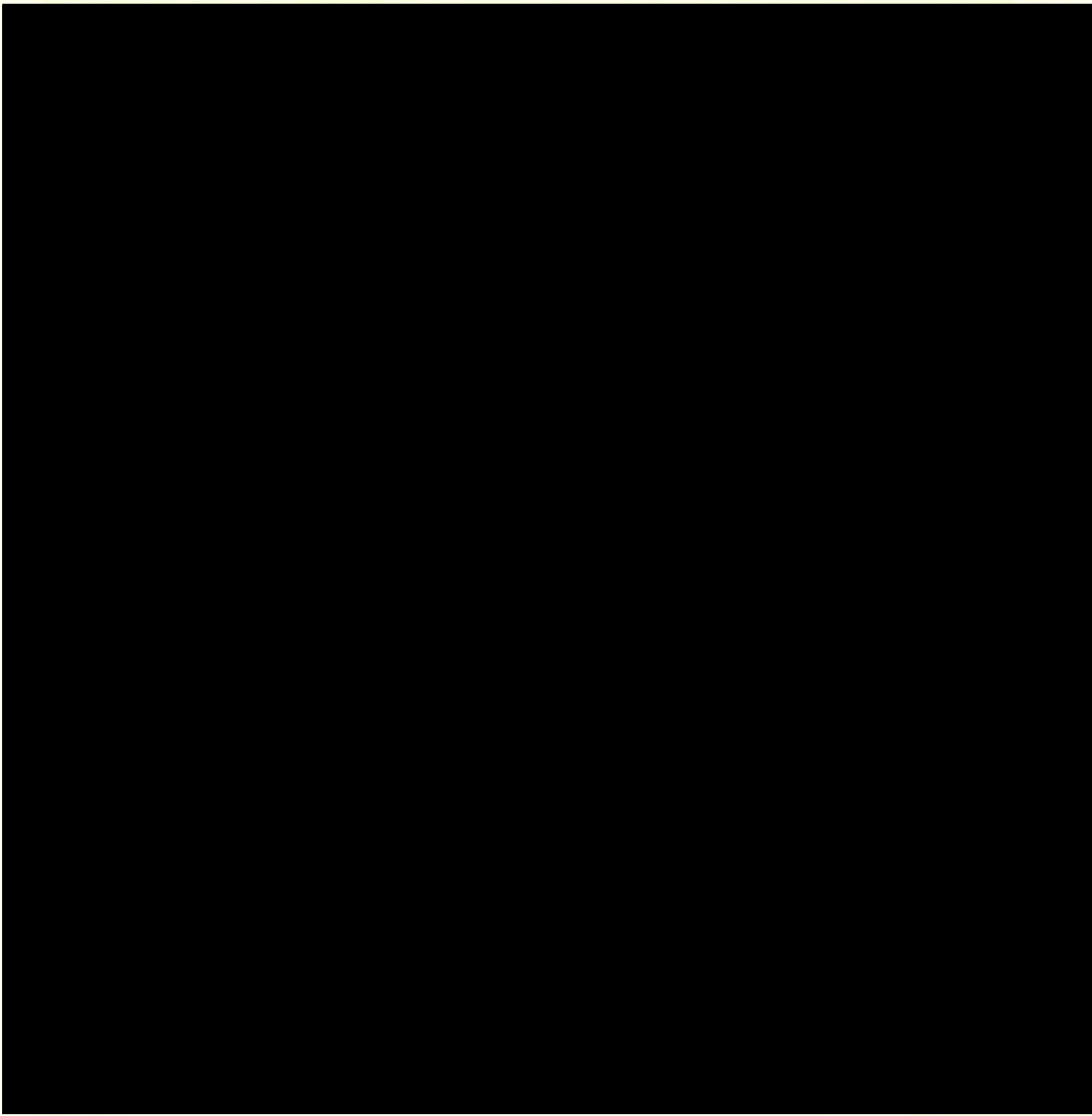




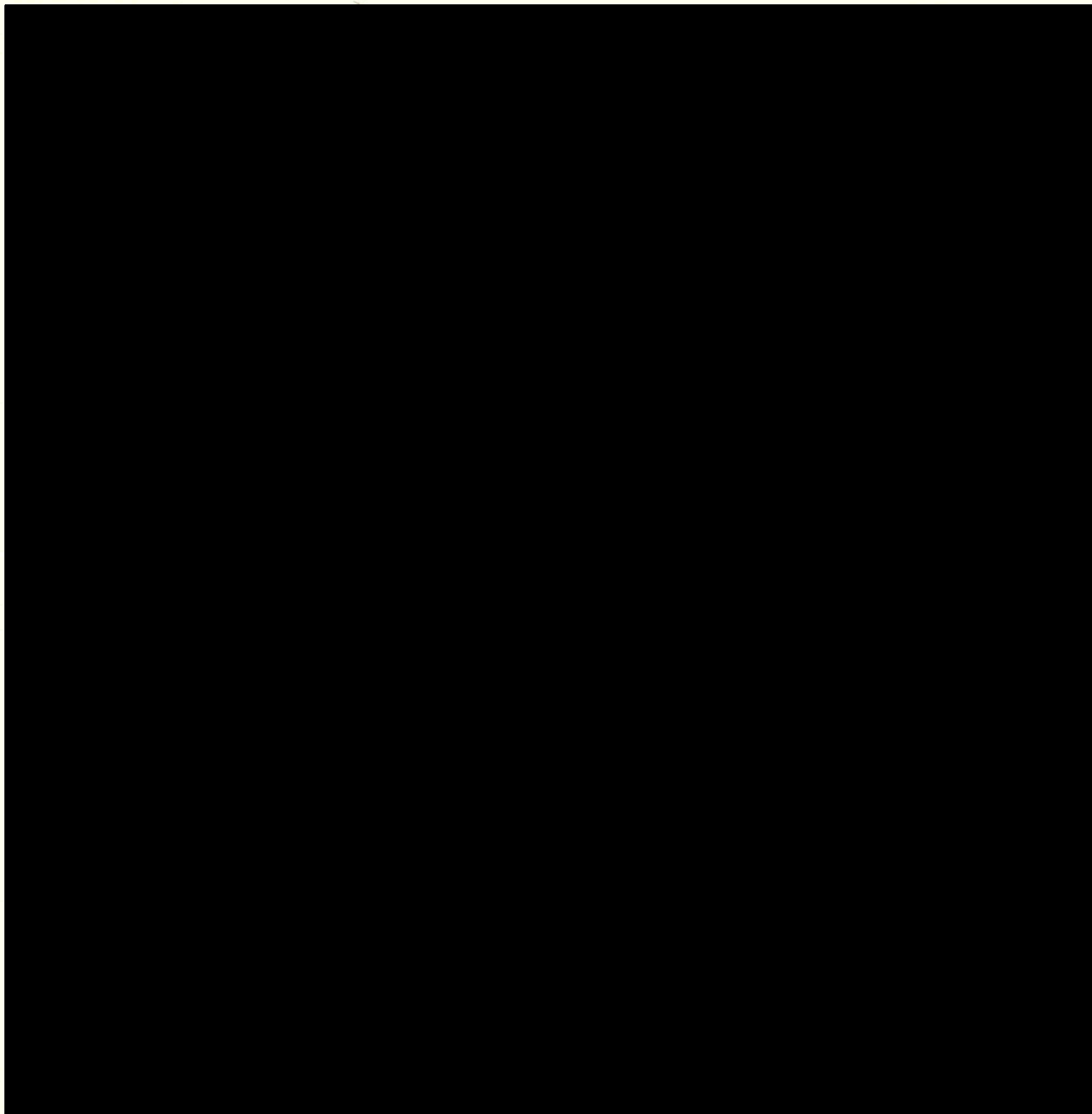


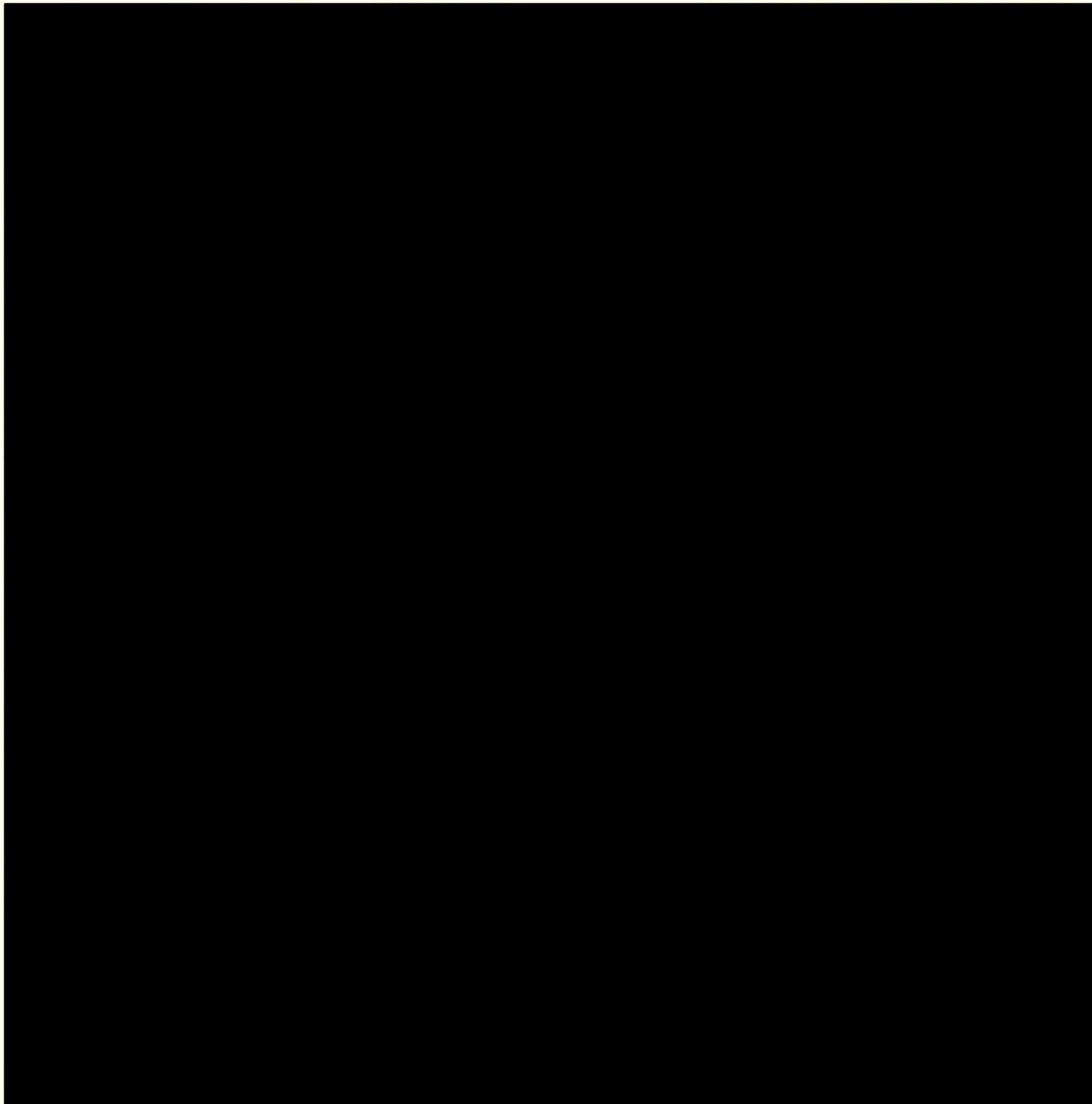
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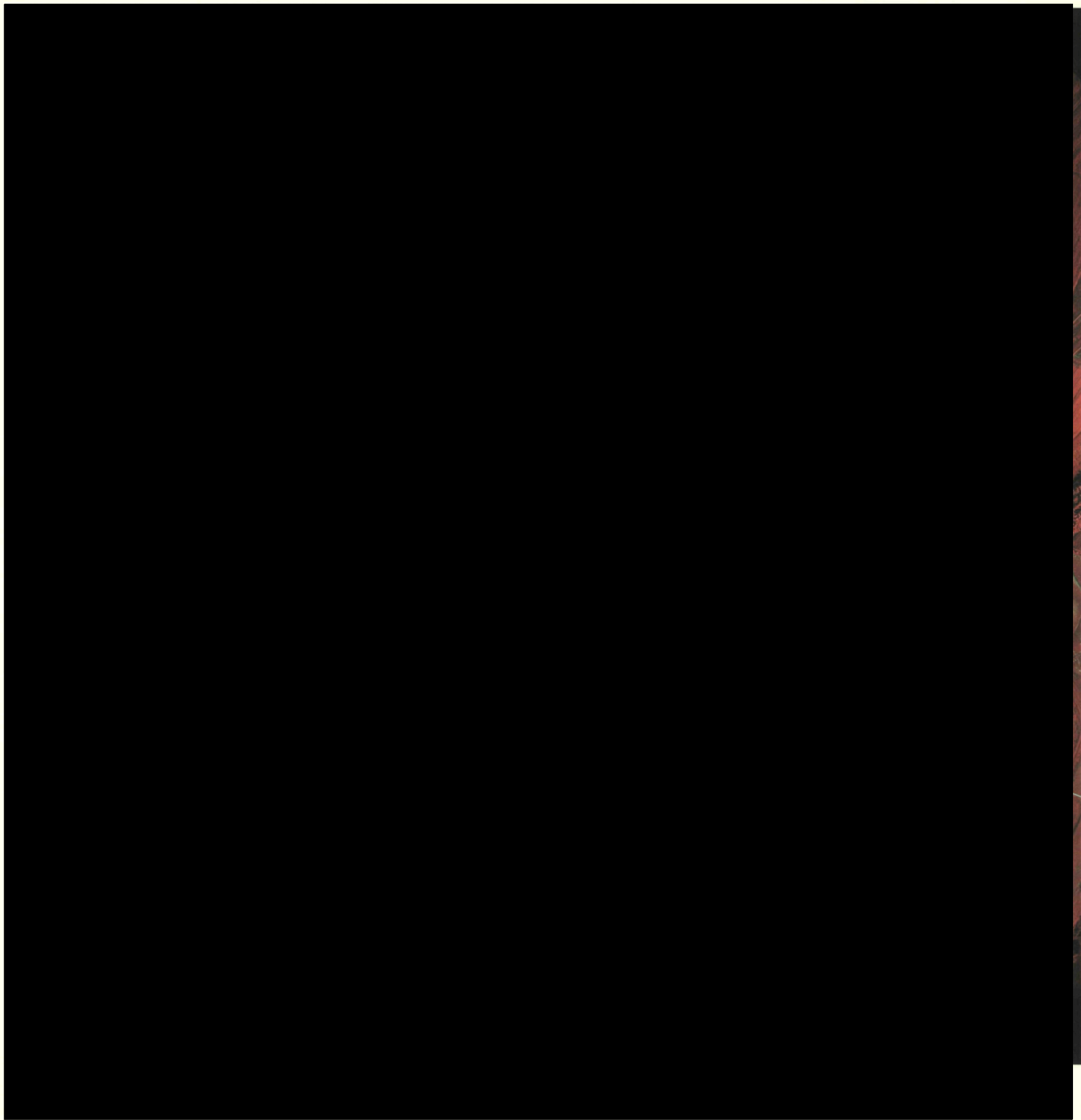
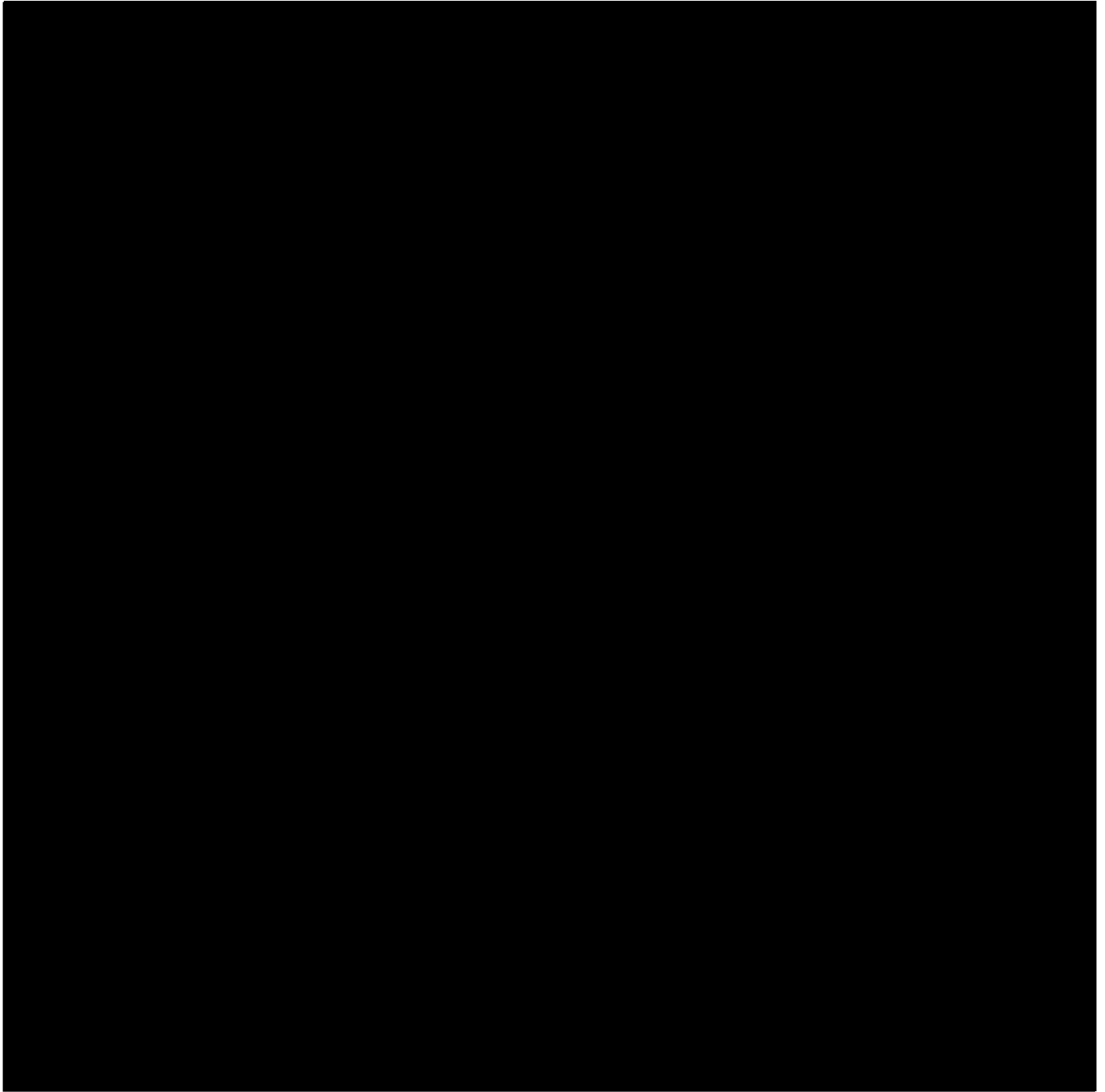
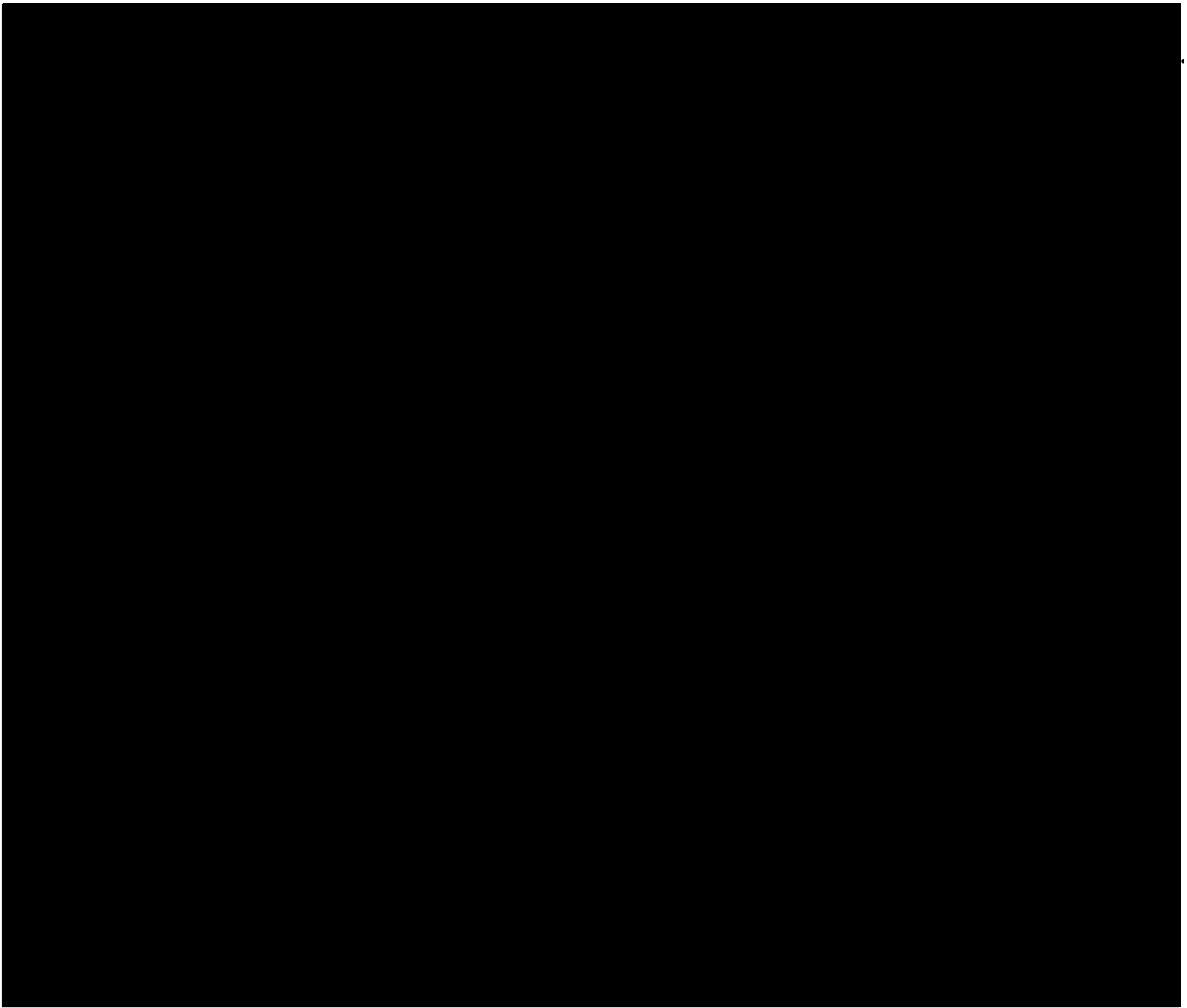
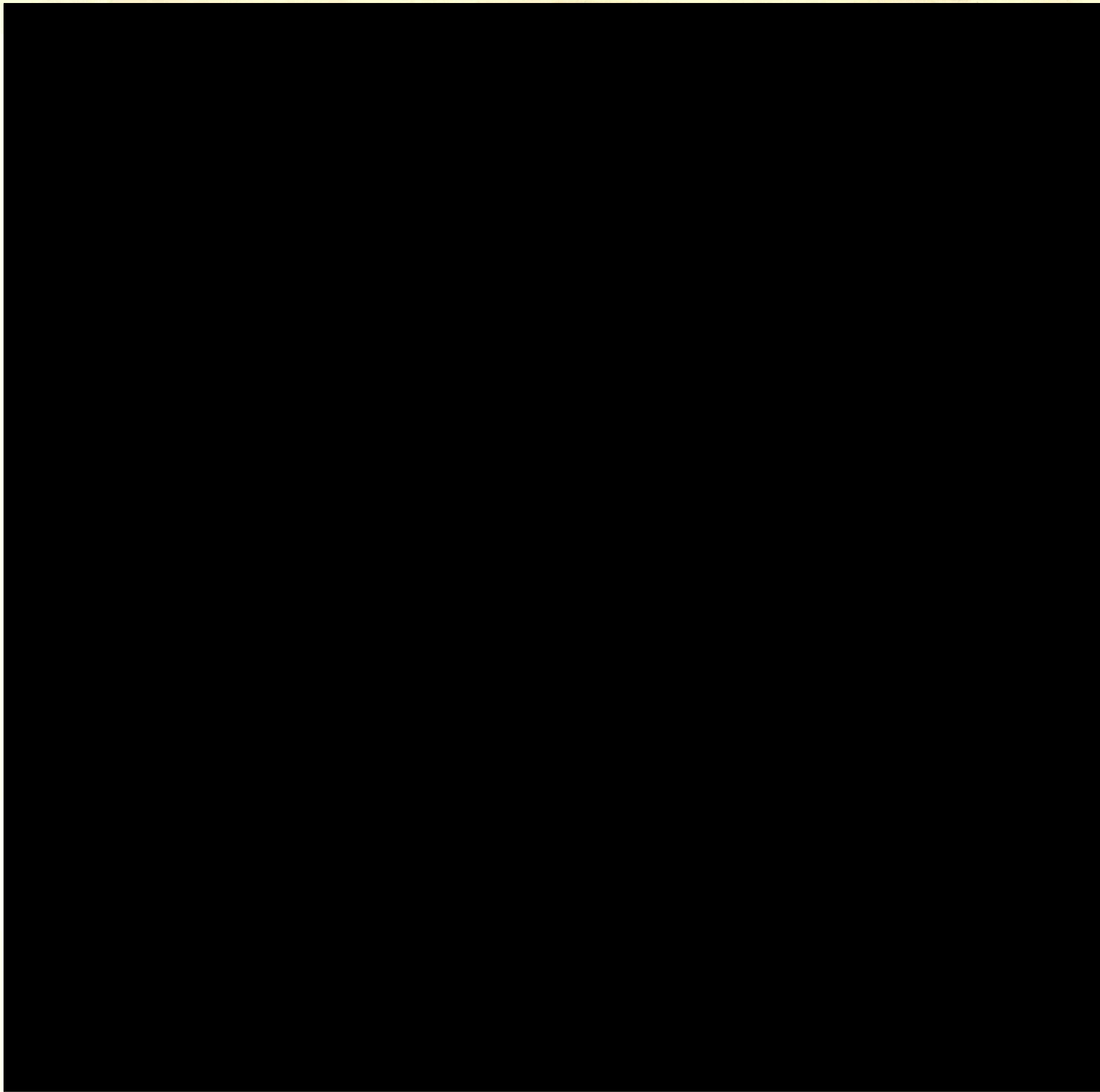


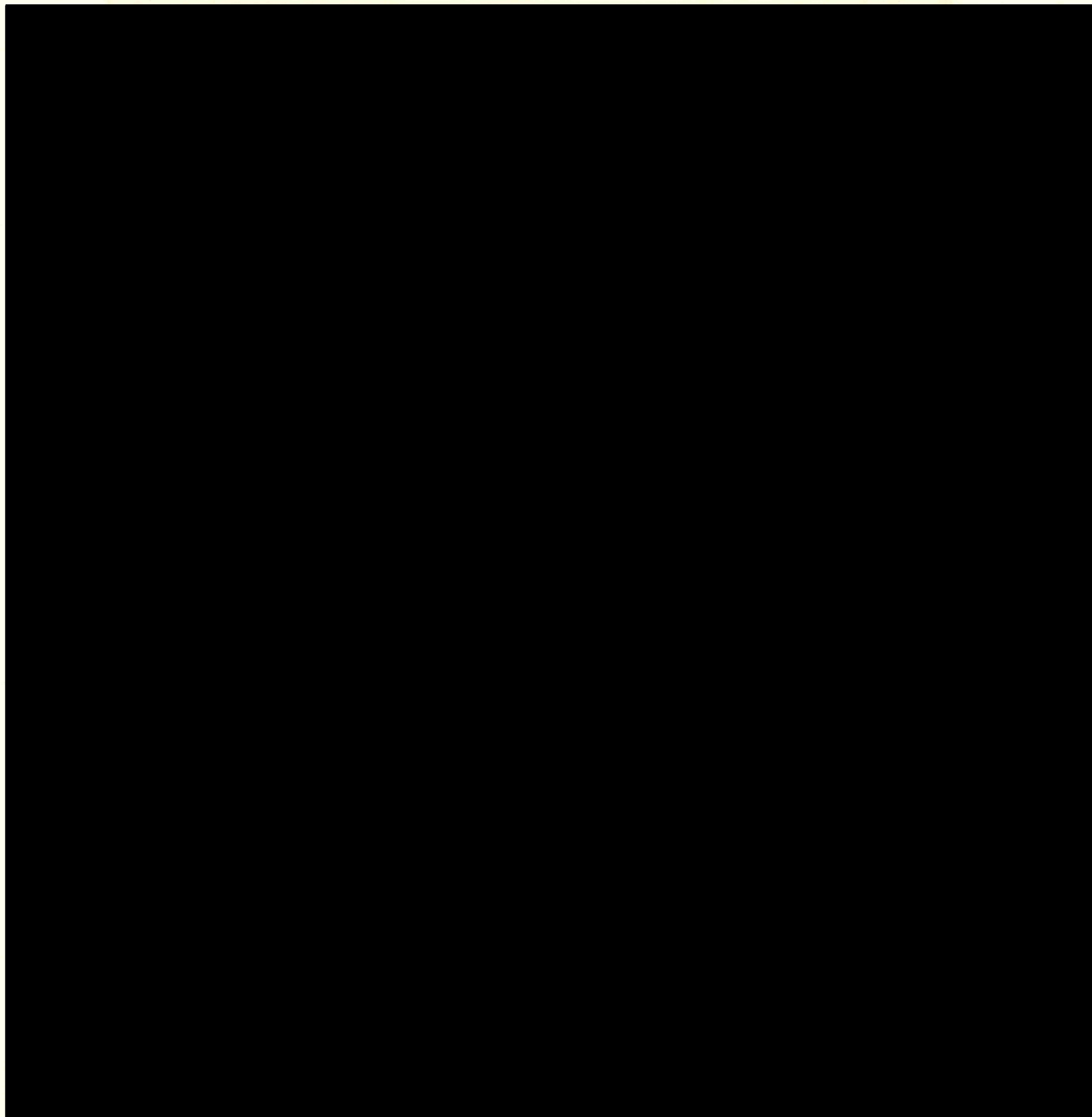
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SITE 8





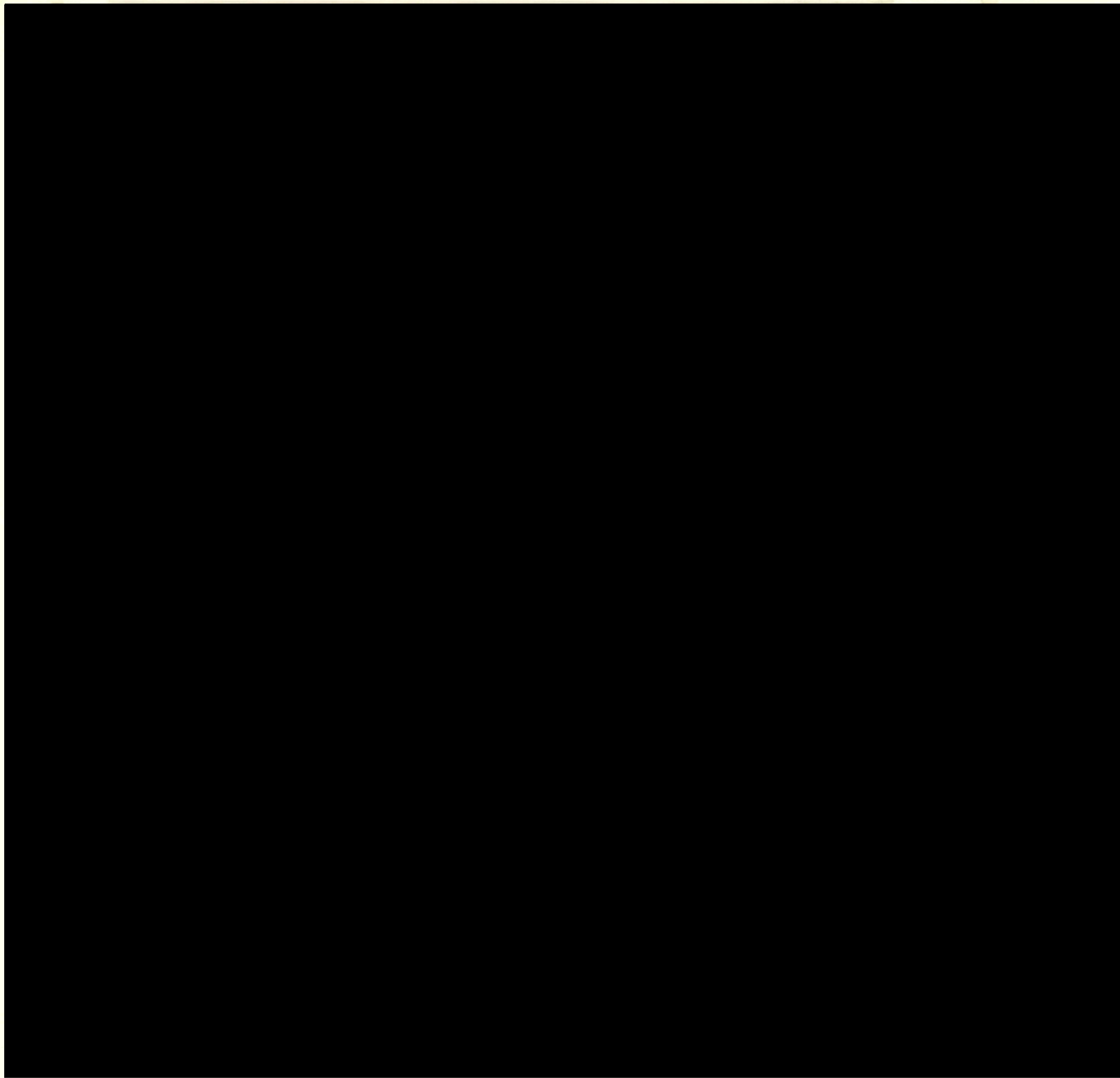
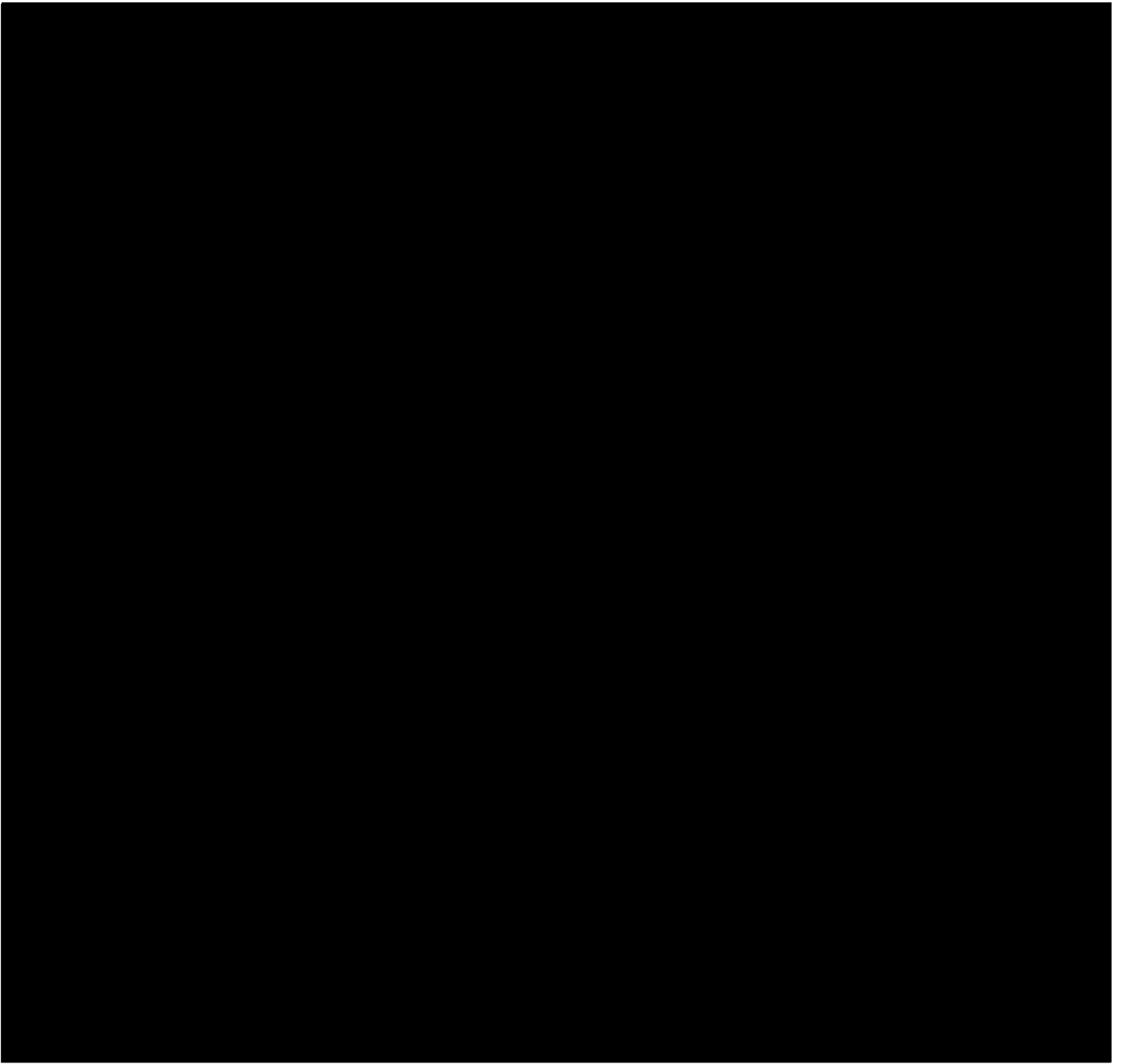
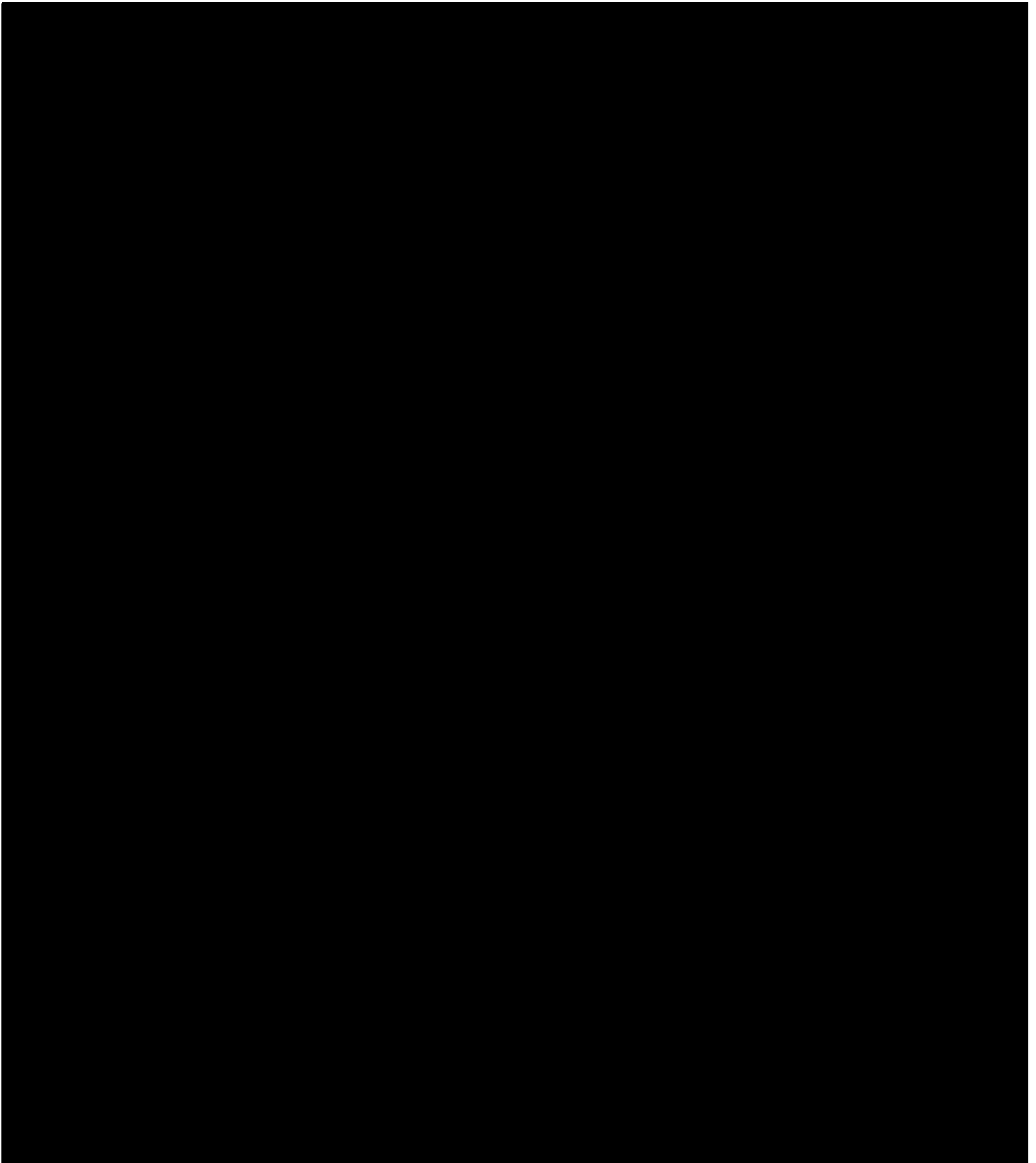
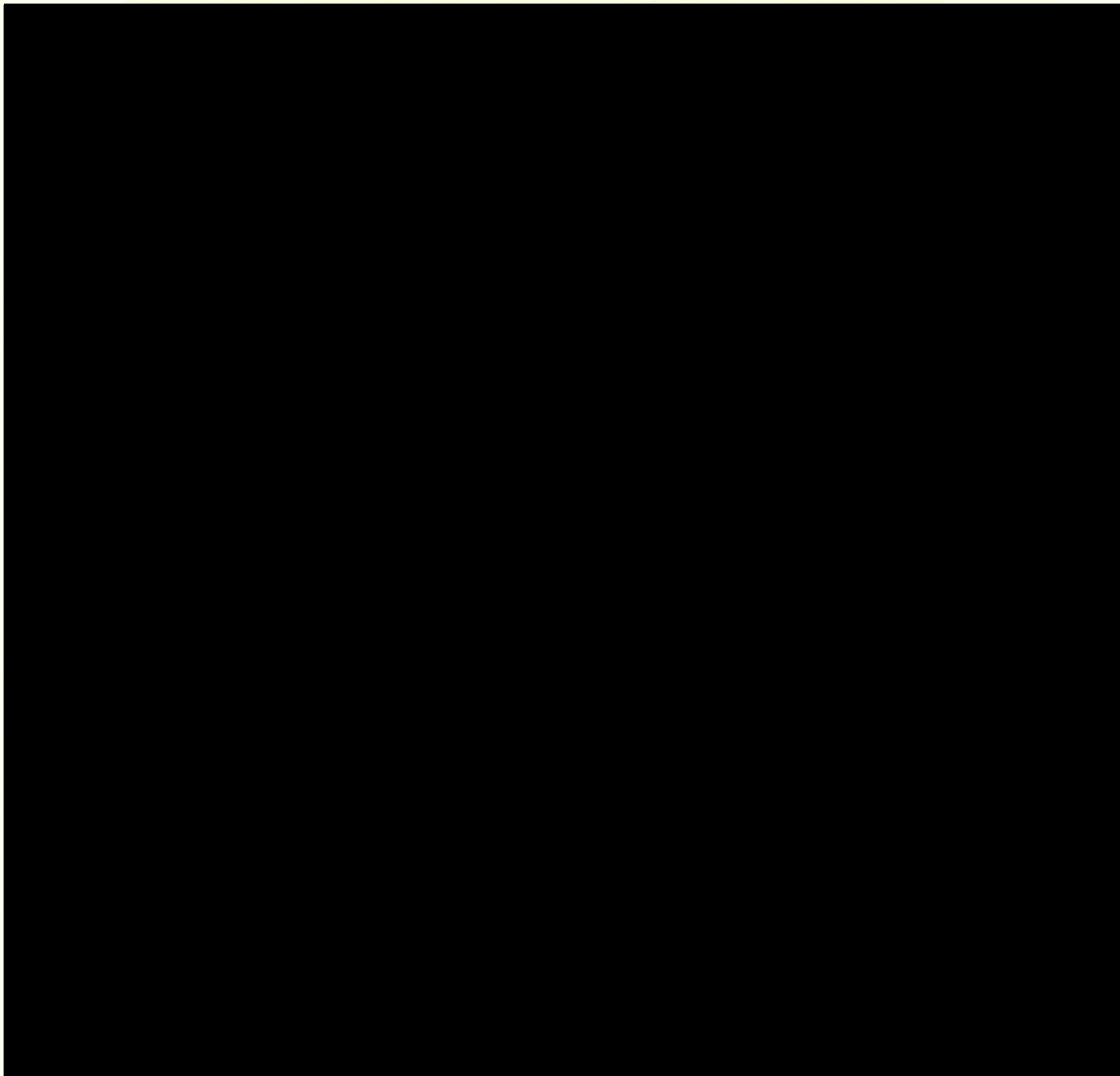
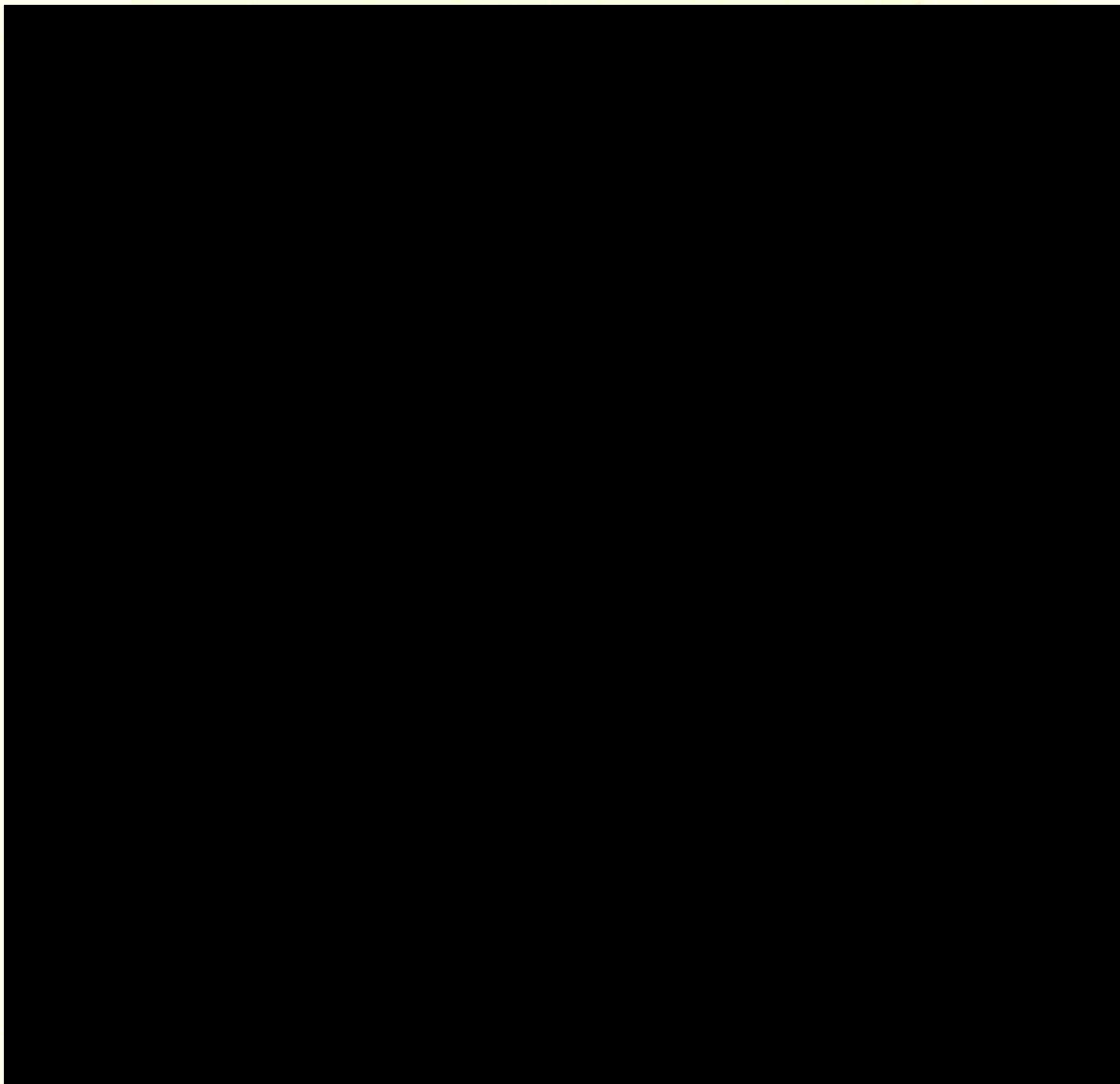


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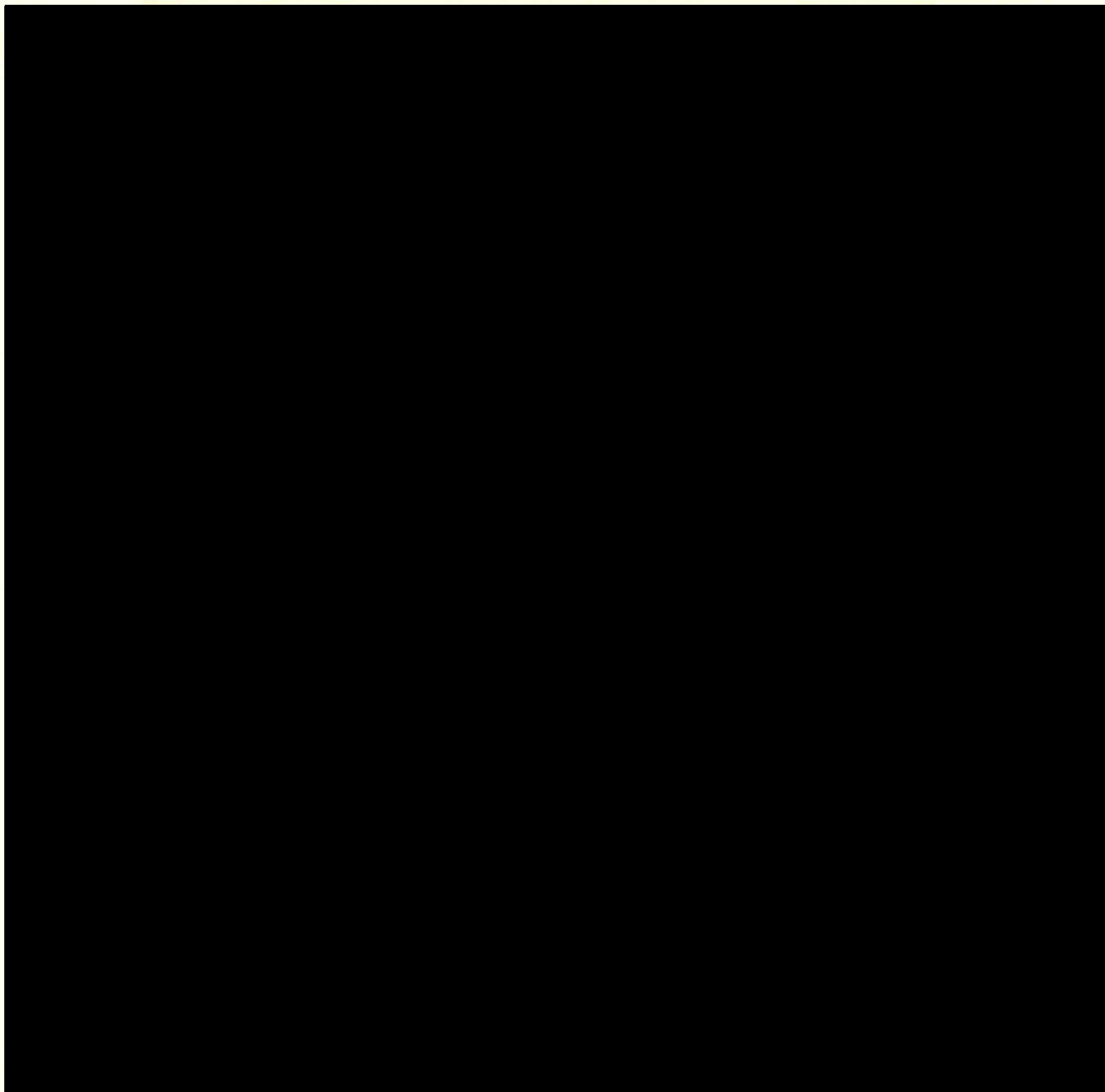
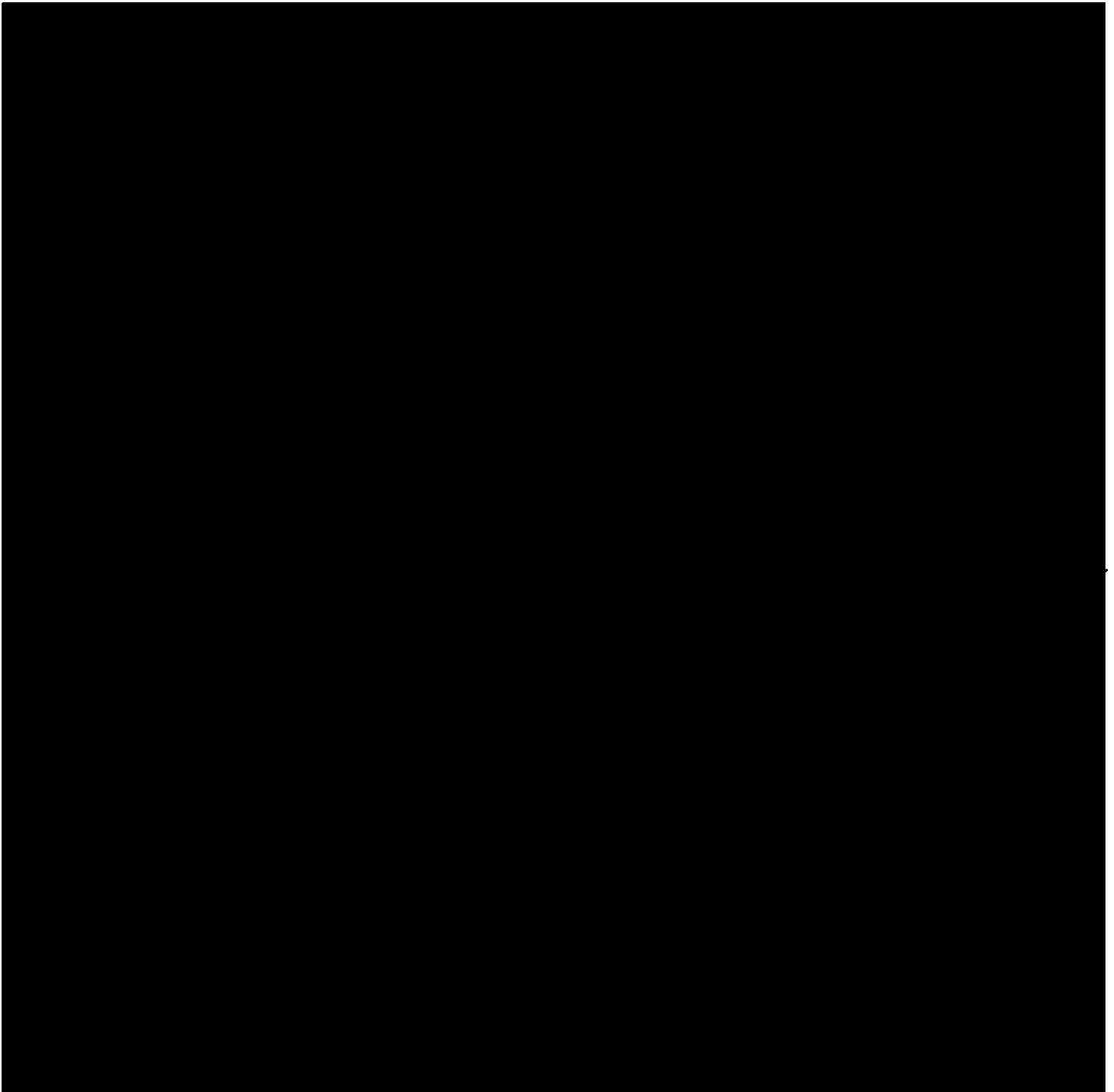
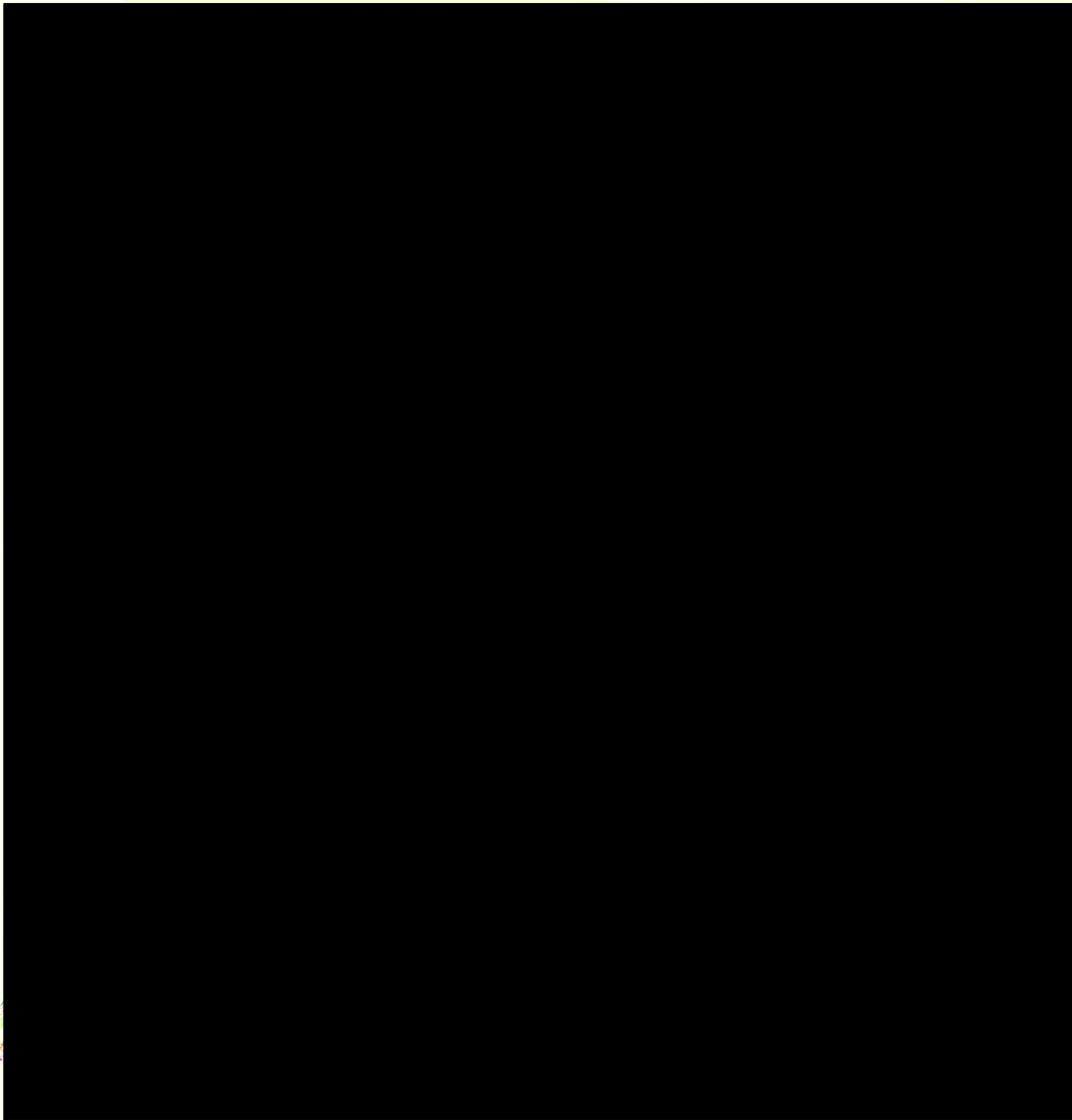
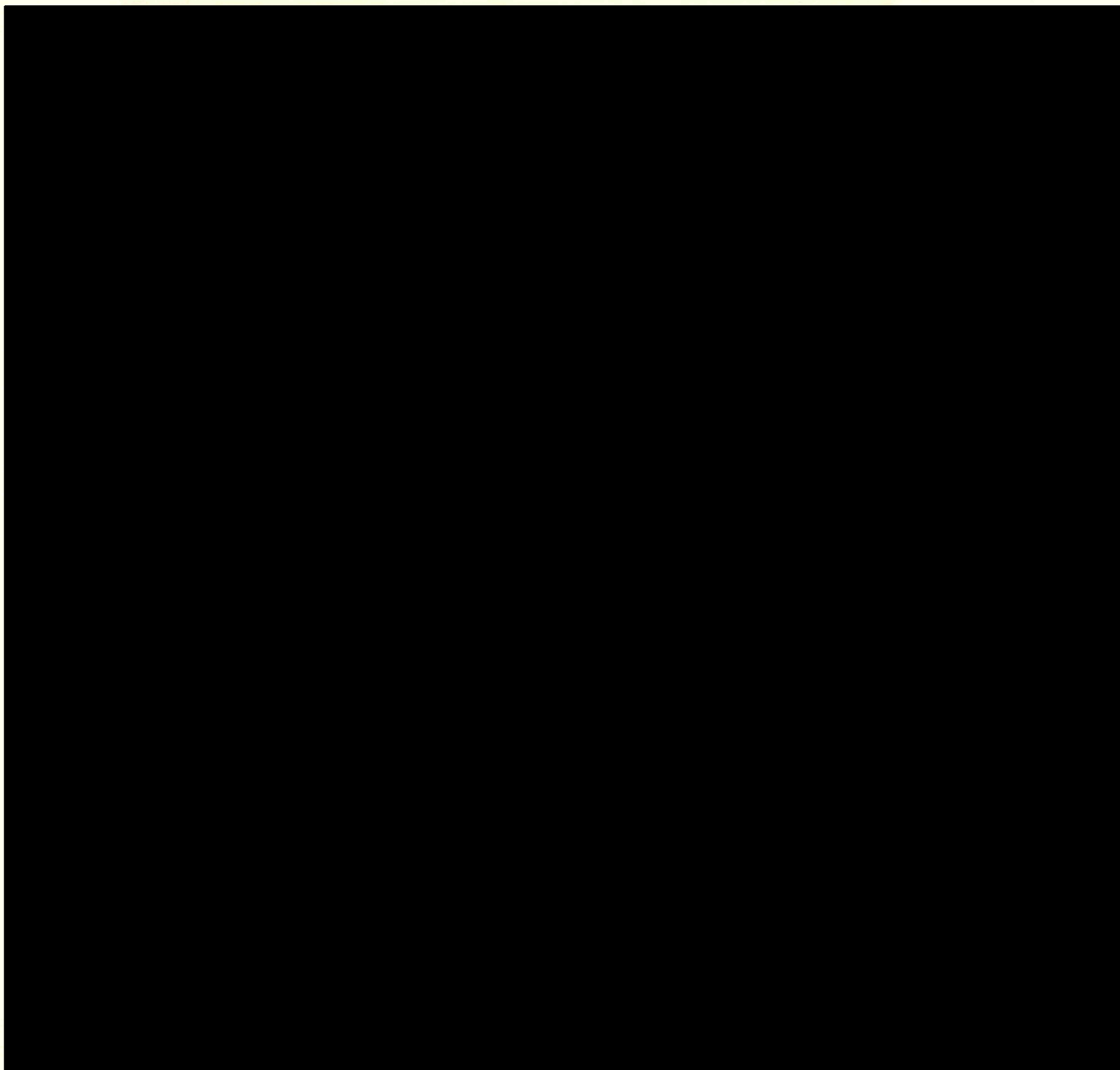


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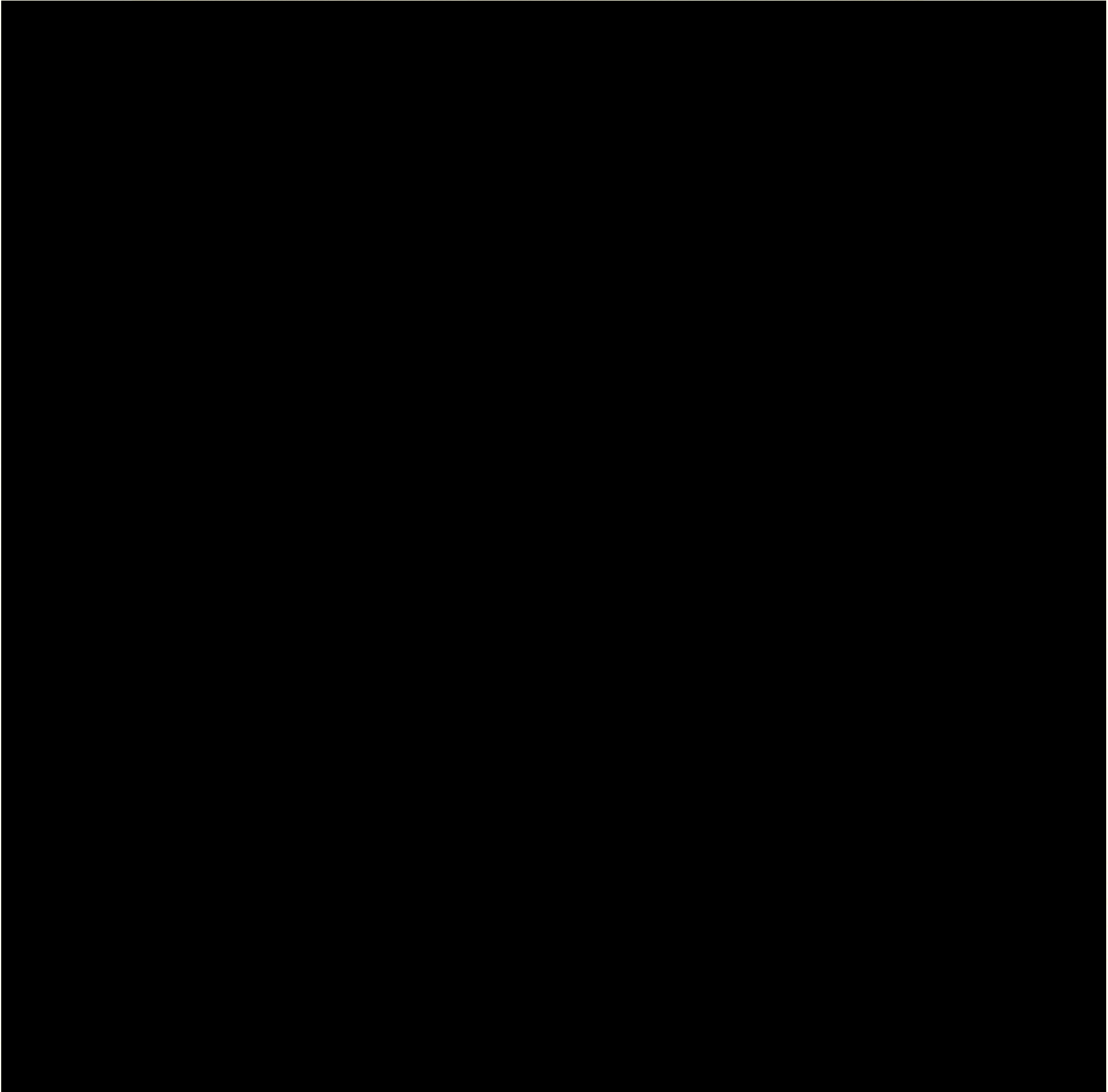
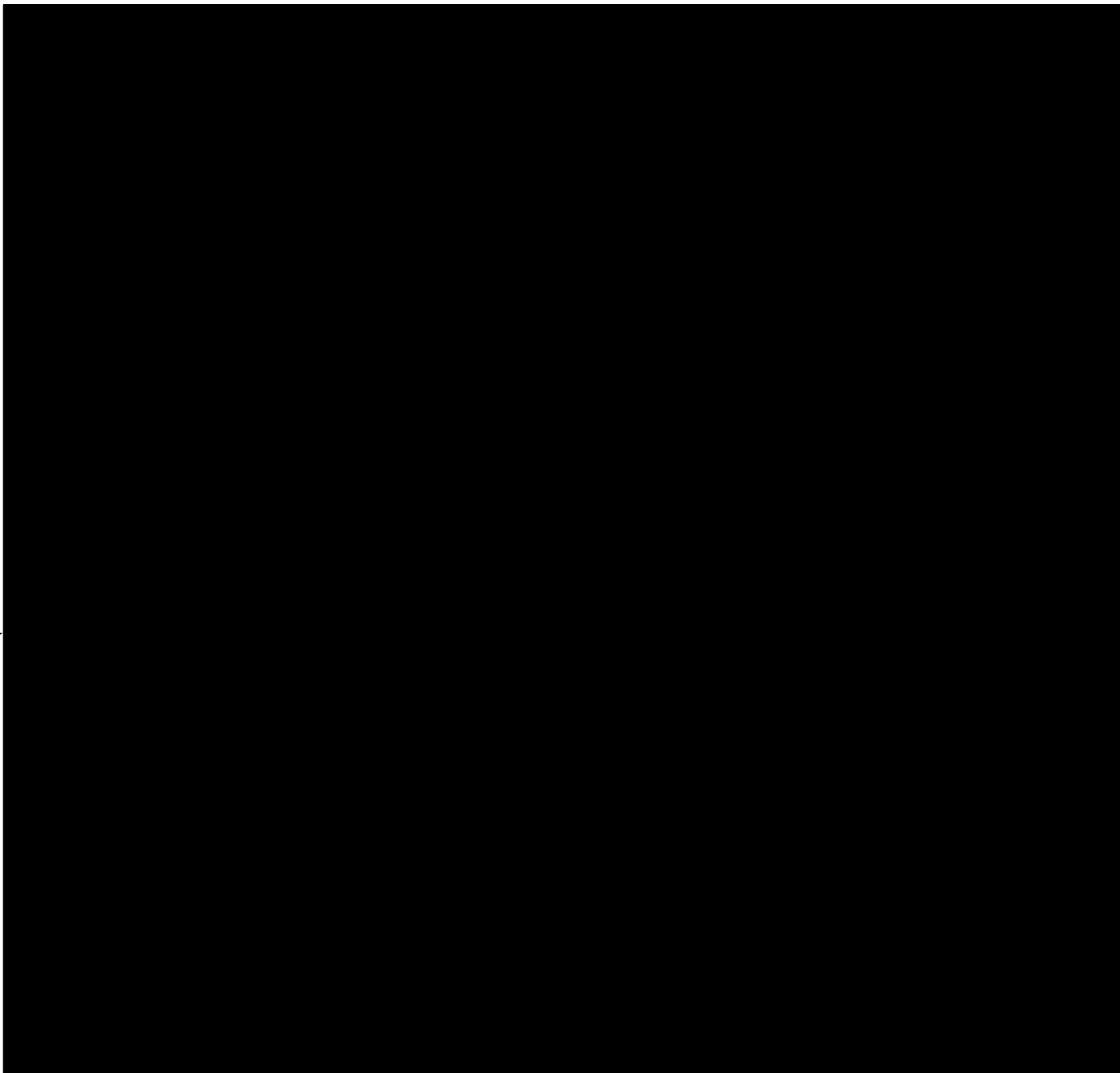
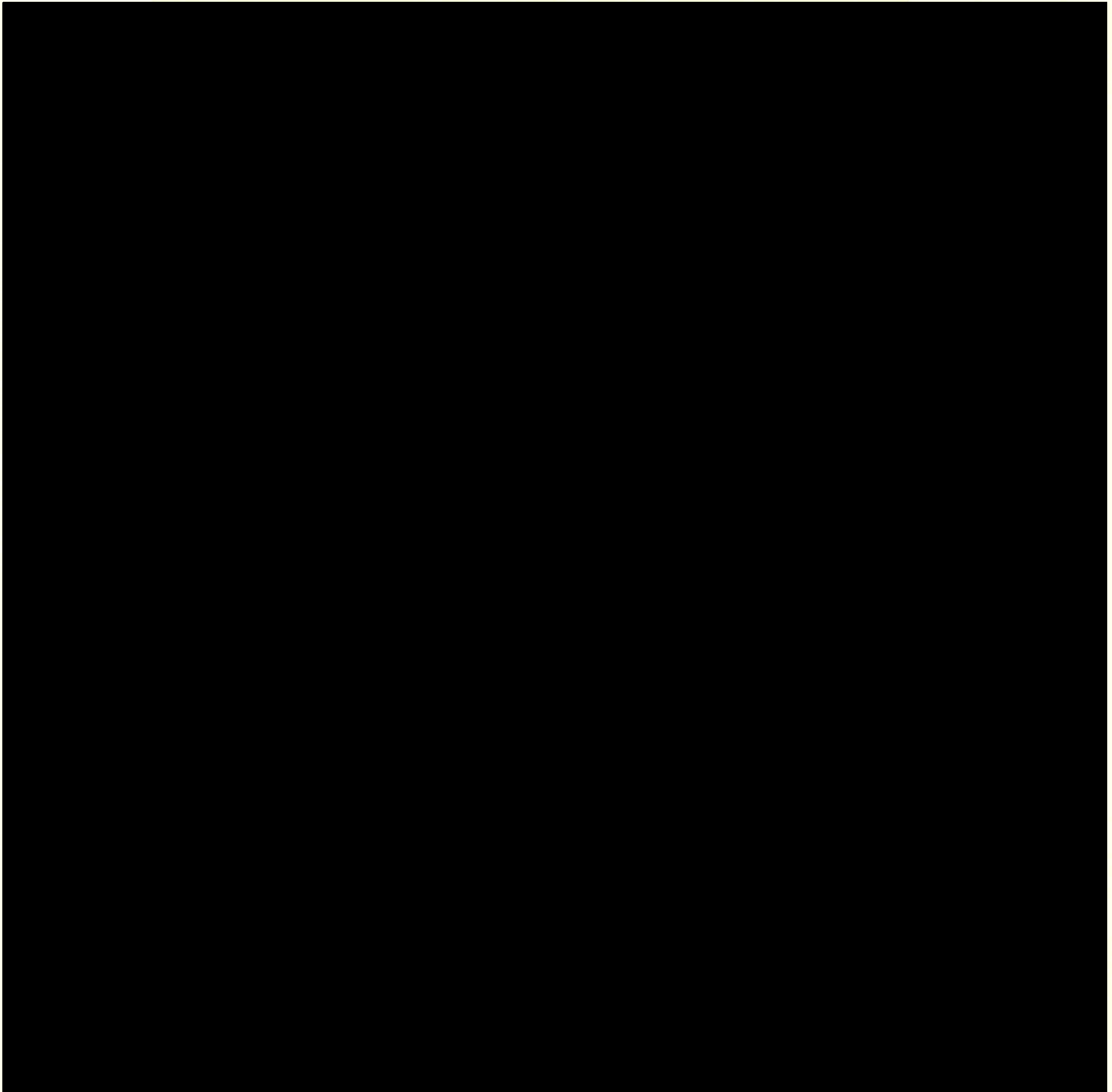


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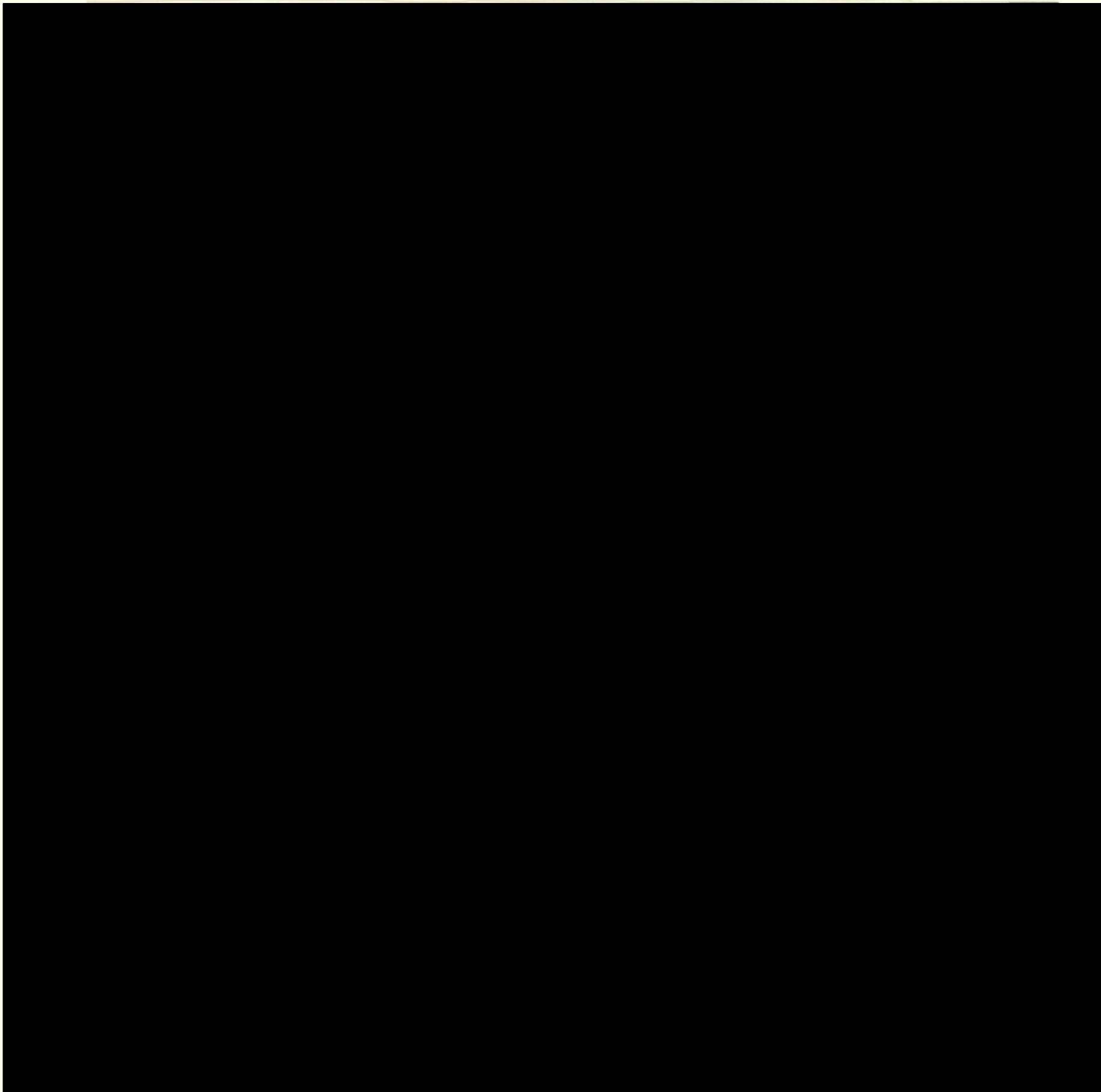
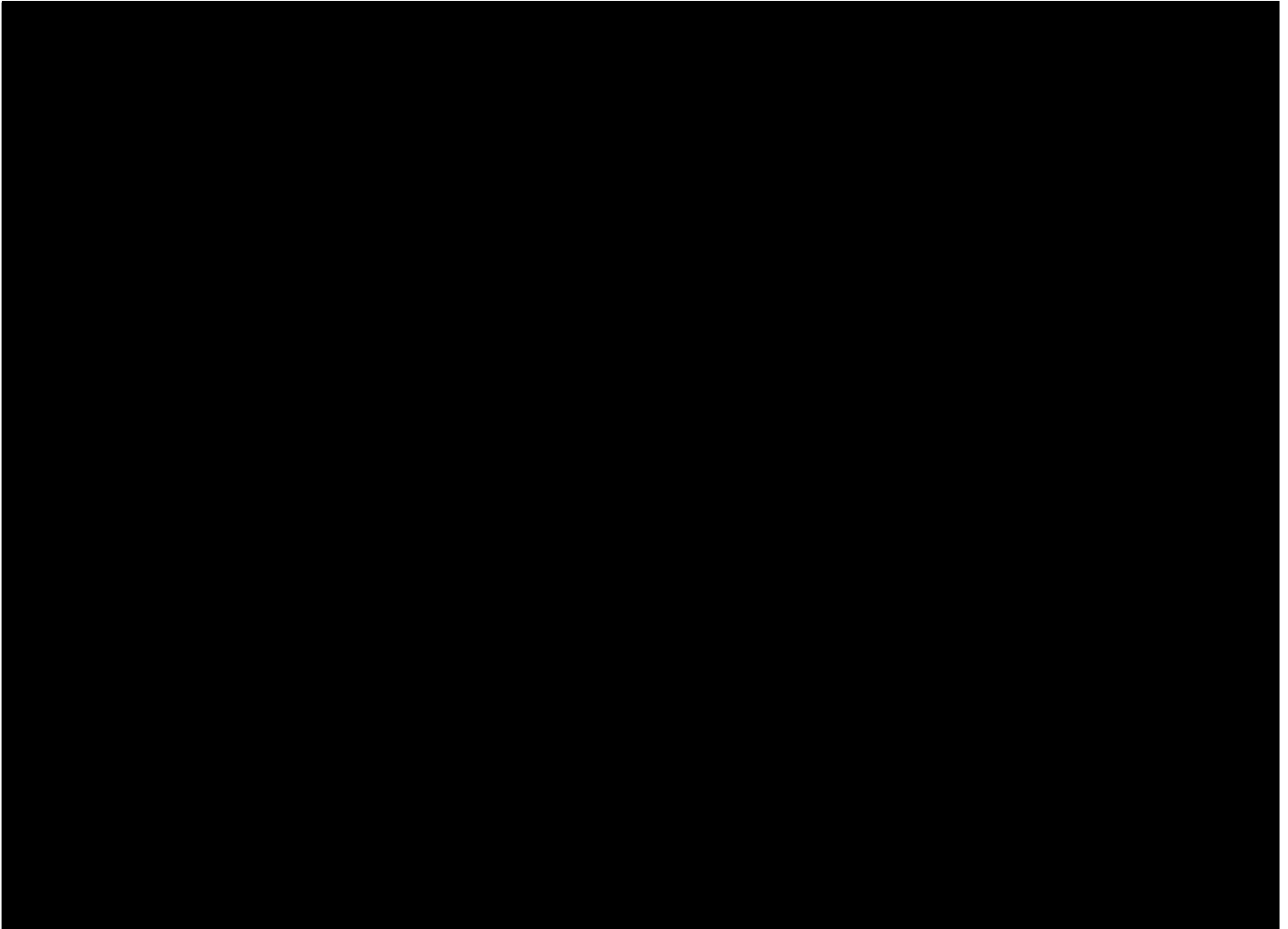
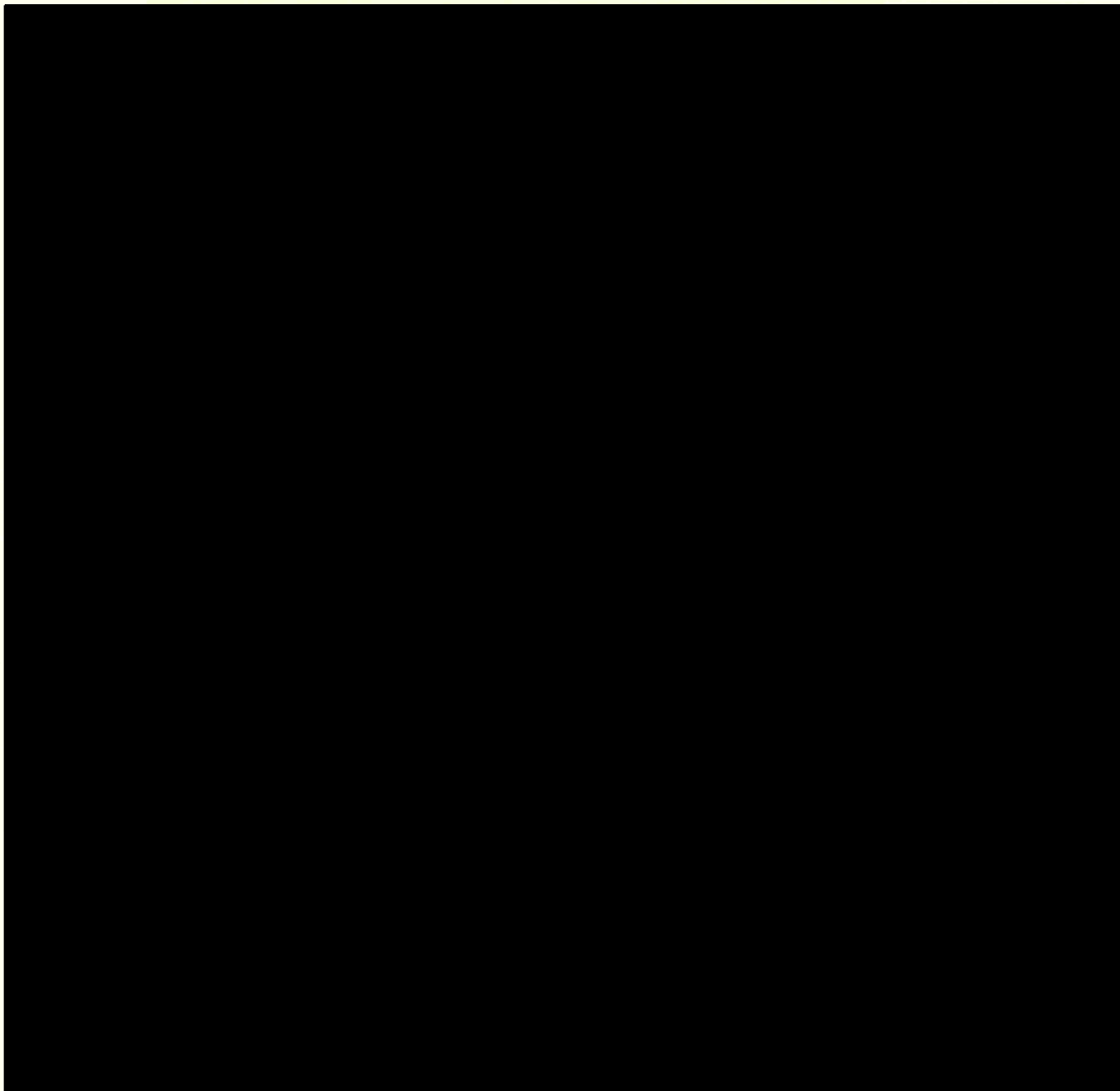


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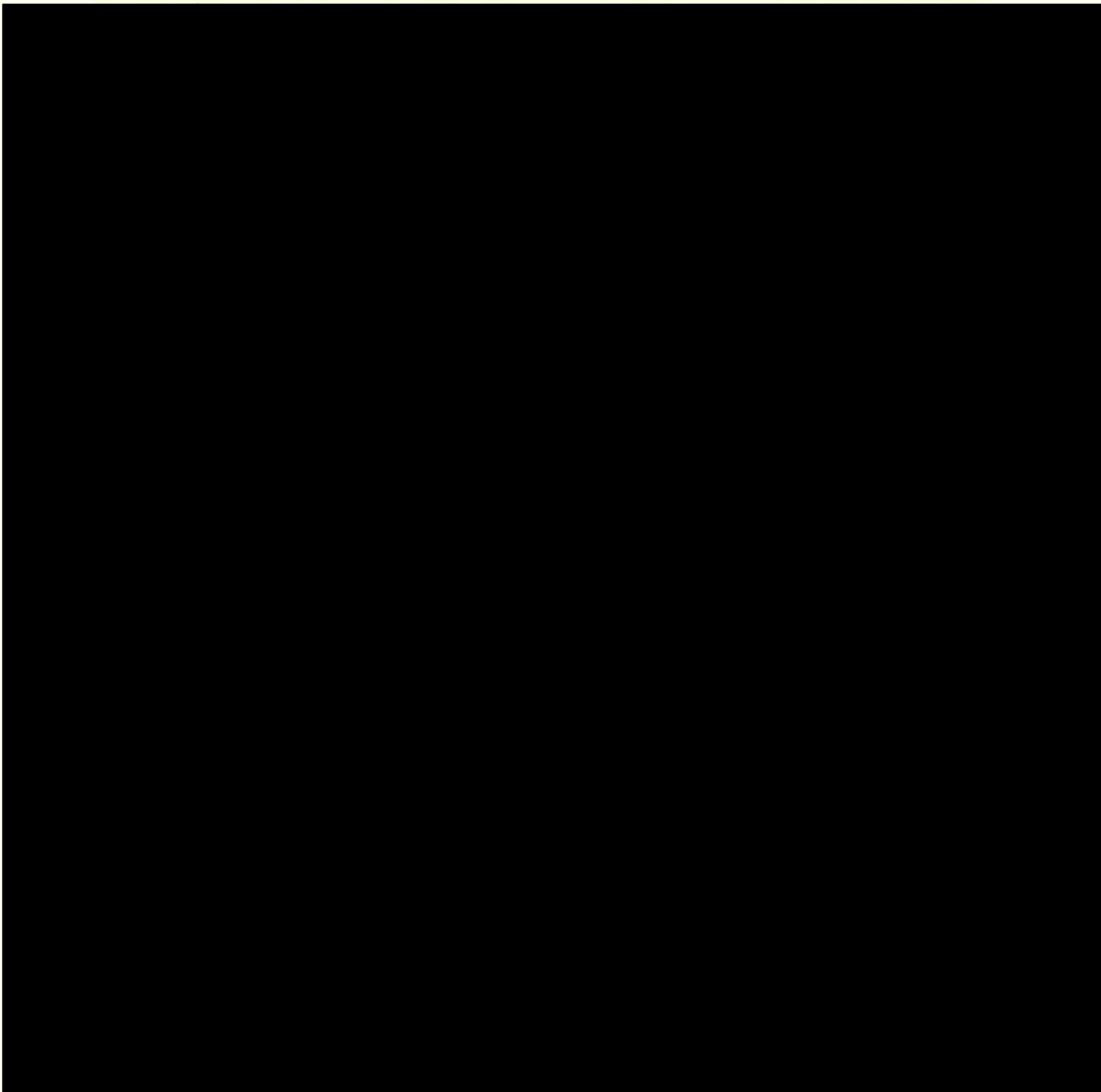
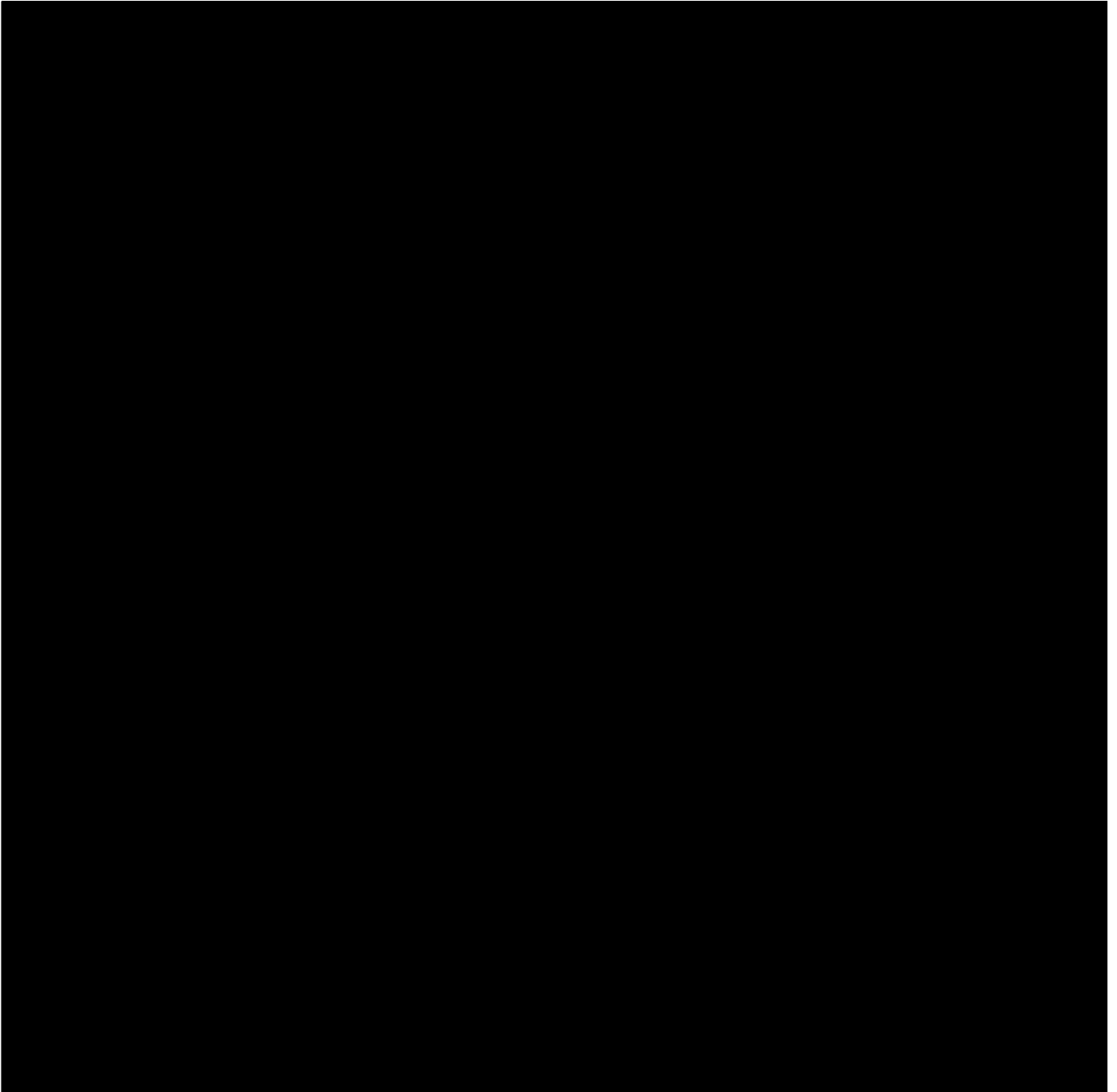
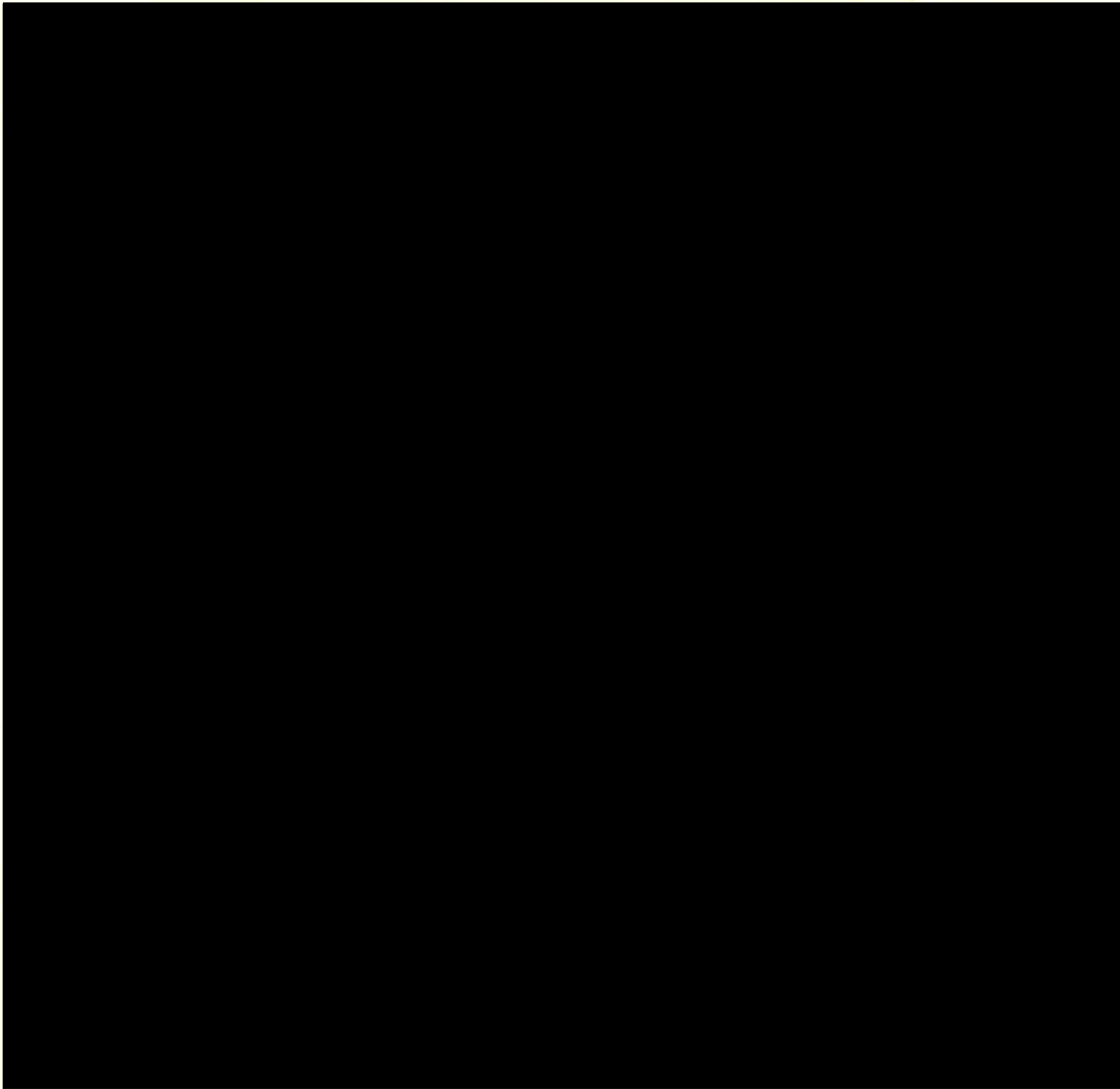
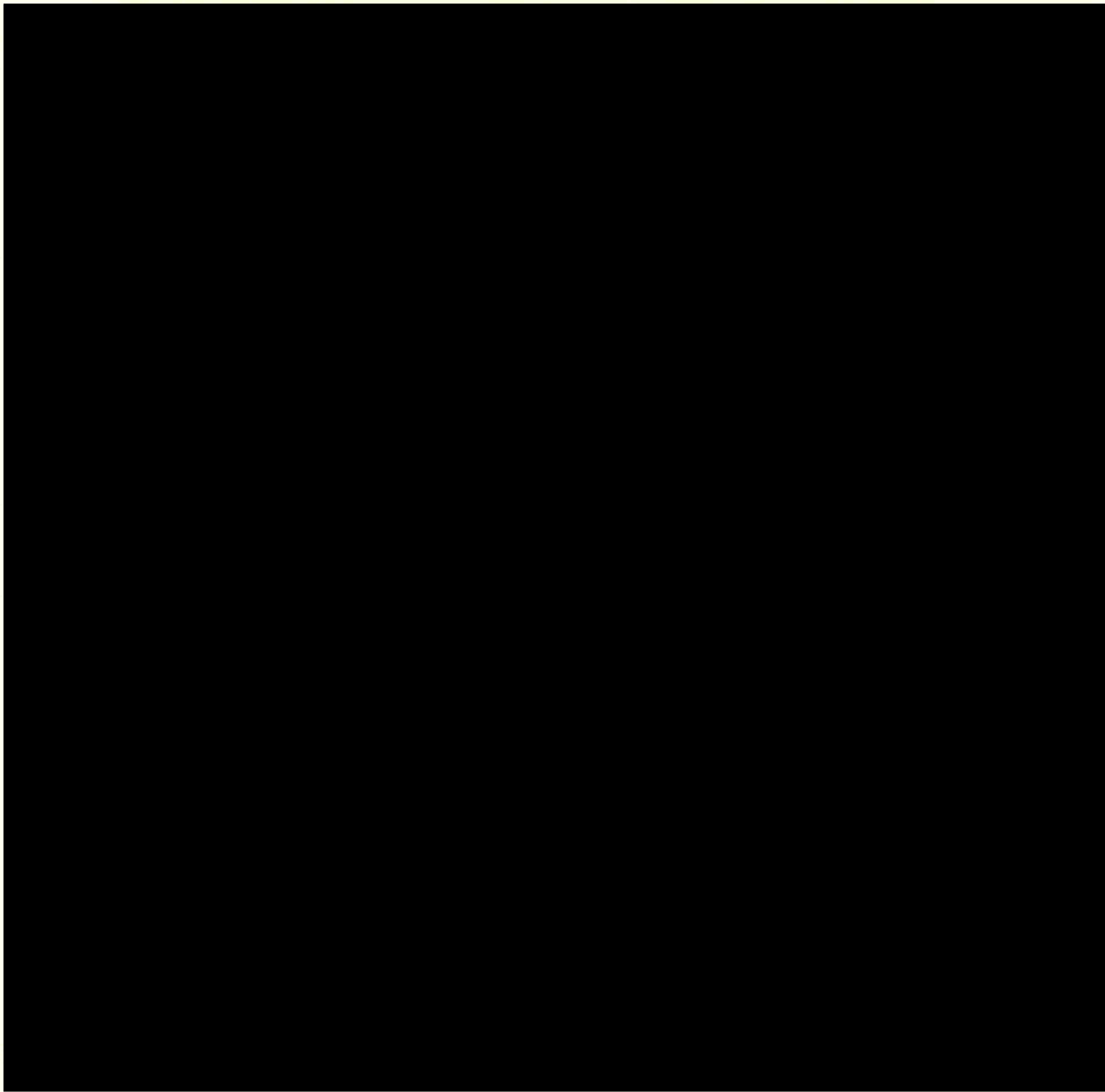


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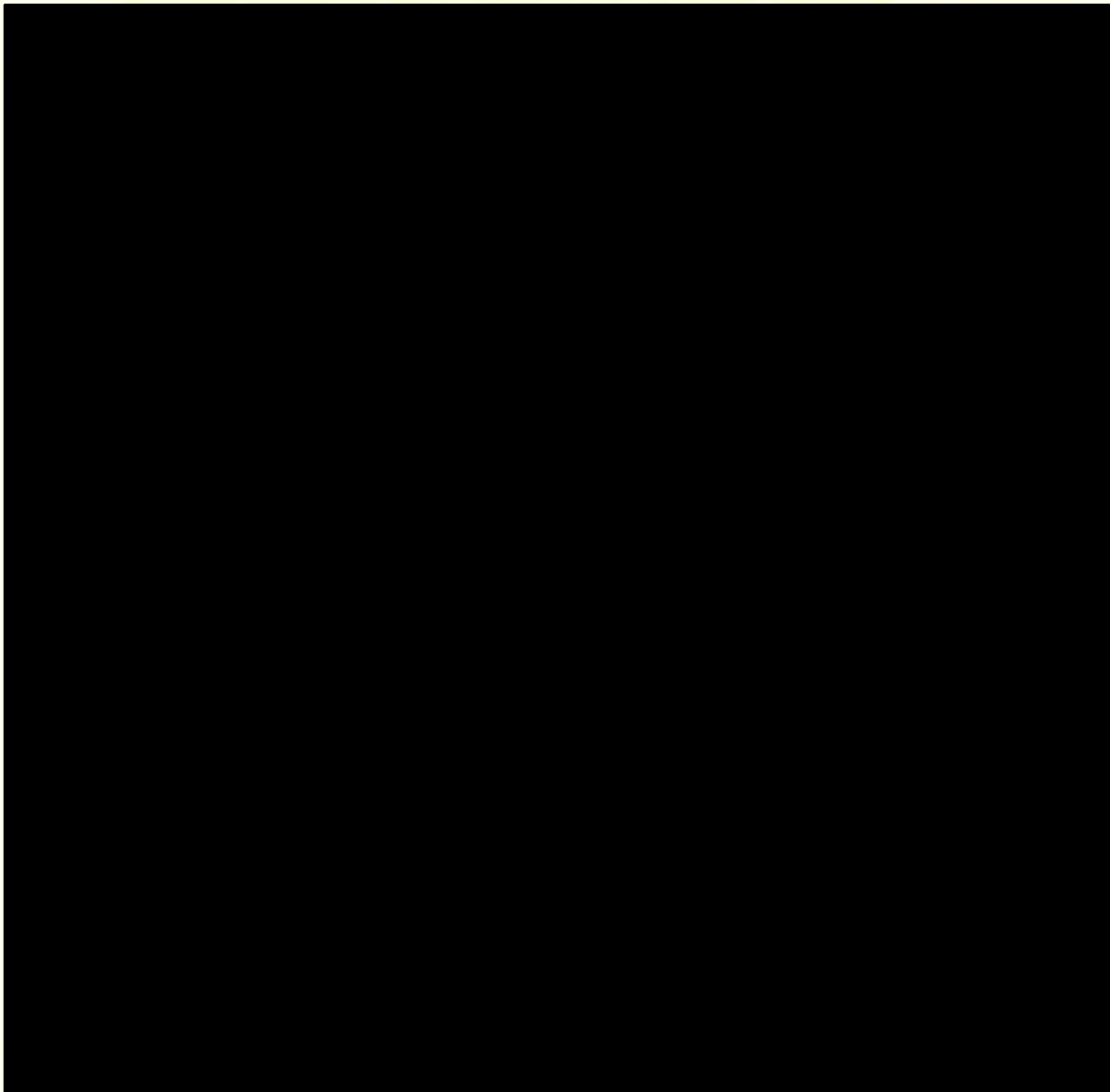


PHOTO ANALYSIS

SYNTEX AGRIBUSINESS COMPANY (SITE 14)

This site is located along the St. Louis-San Francisco rail line just west of Verona, Missouri. The plant has 13 vertical and 2 horizontal processing tanks which lack secondary containment. Extensive spillage was evident throughout the facility and especially in the waste treatment areas. A branch of the Spring River flows into the plant area from the north, appears to go under the plant and exits to the south and west near the southern perimeter fence. The drainage to the west re-enters the Spring River directly and the southern drainage goes underground approximately 300 feet east of the river. Spillage was entering the branch stream in the waste treatment area in the northern part of the facility. The known waste disposal areas west of Spring River were inactive at the time of overflight. Vegetation stress was evident on the surface of two probable burial trenches in the main area and in the trees adjacent to the northeast end of the known burial site. Two other possible areas of disposal are annotated on page 73; however, tree cover precludes positive identification.

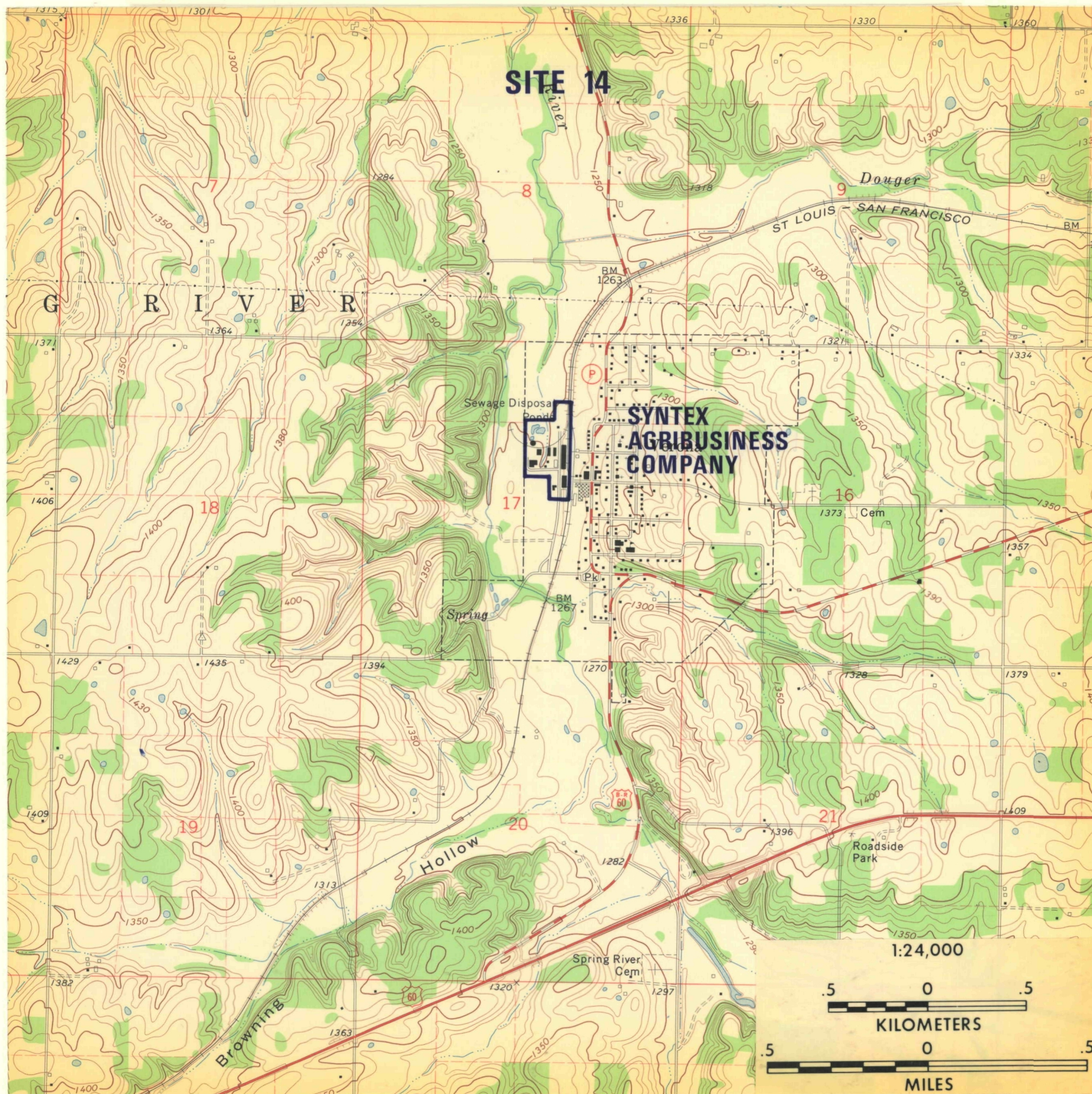
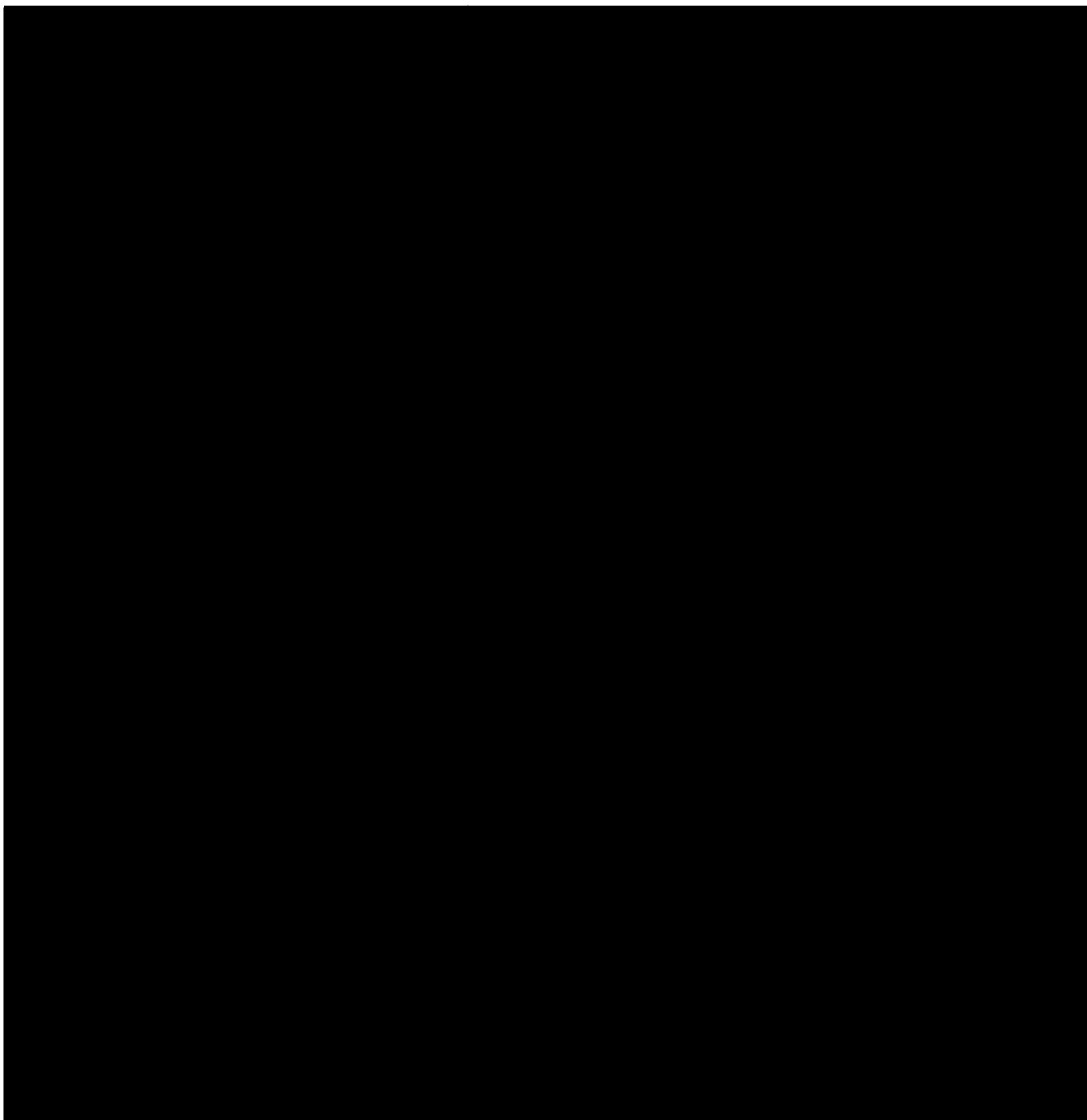
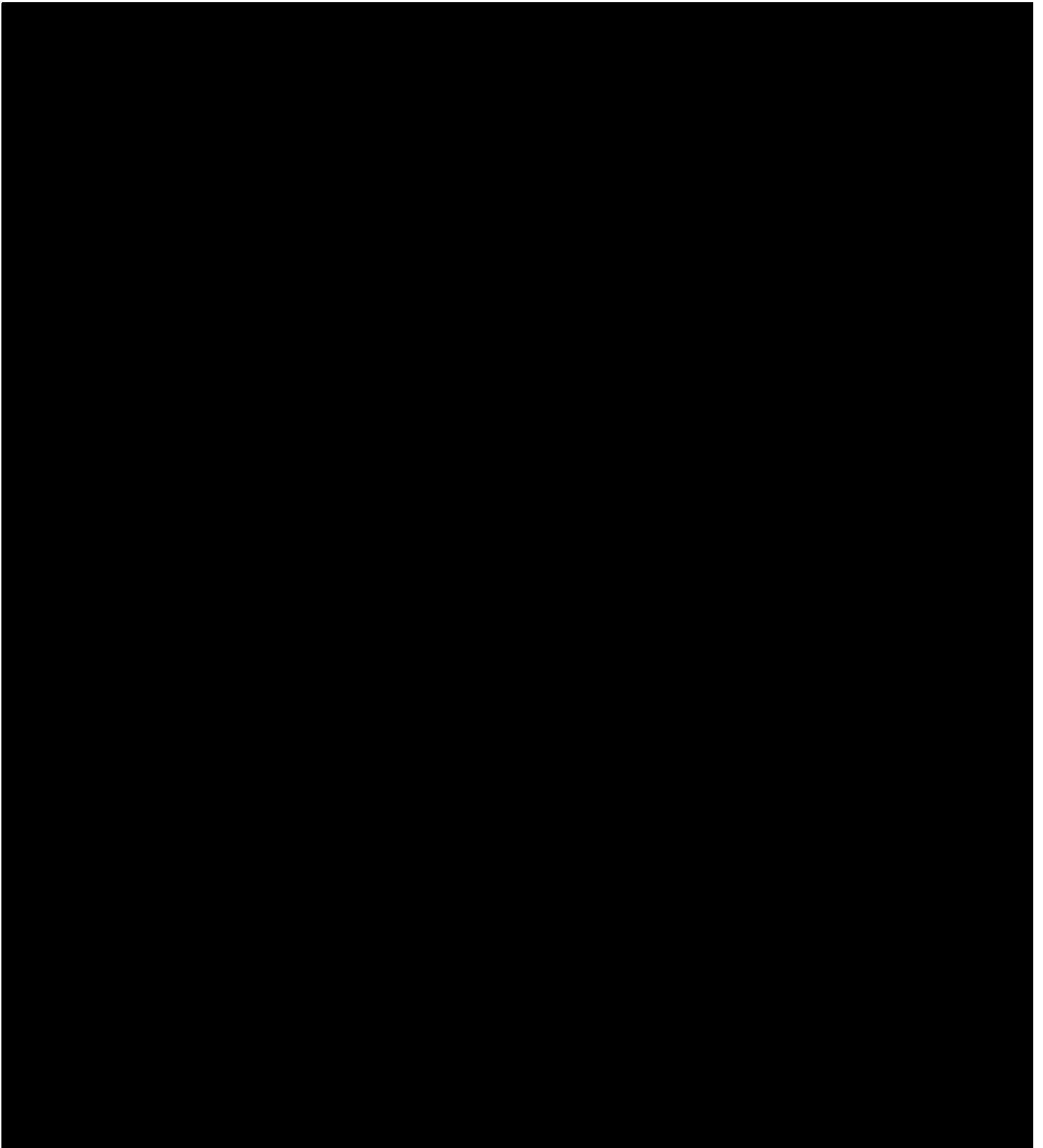




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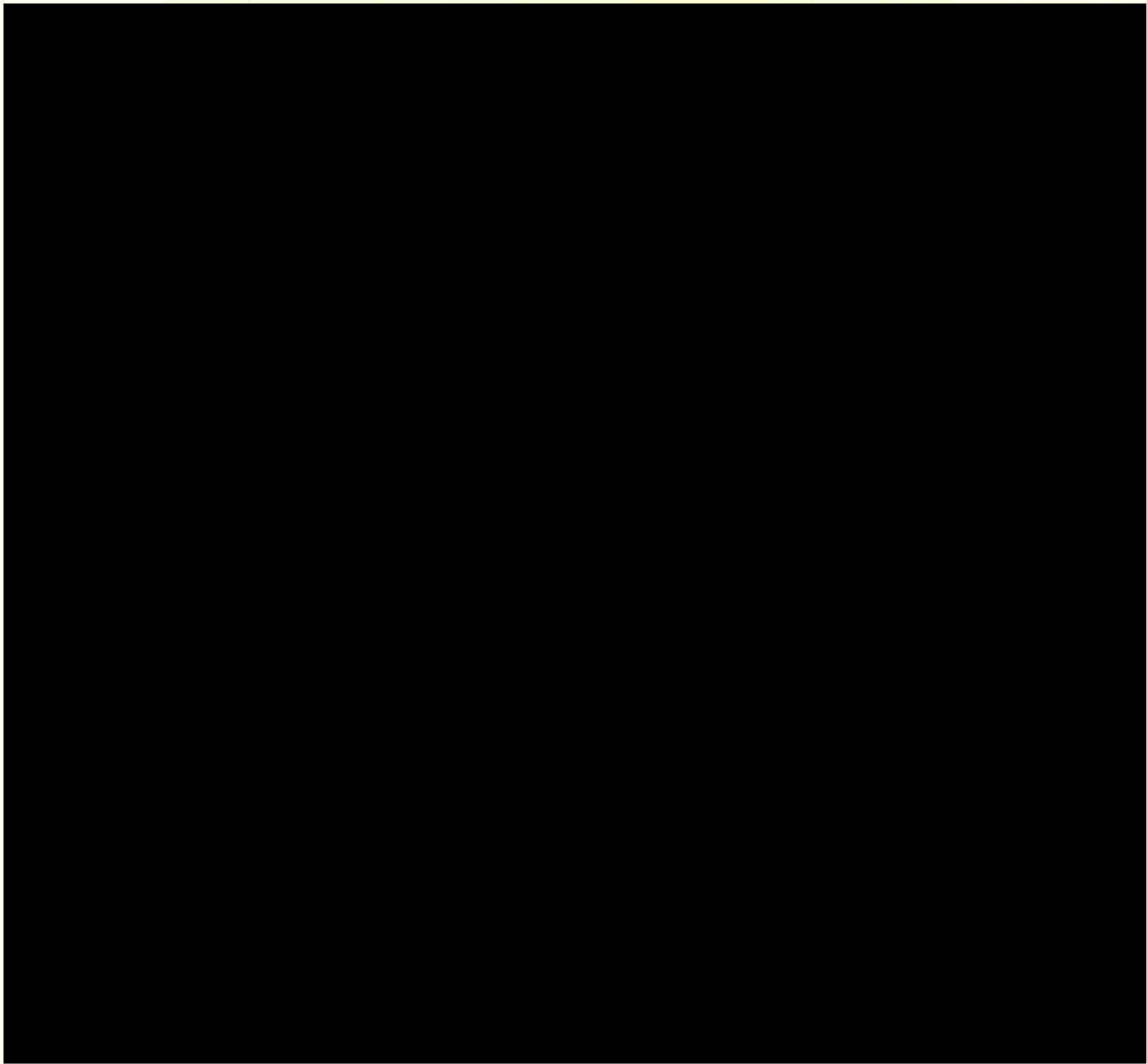
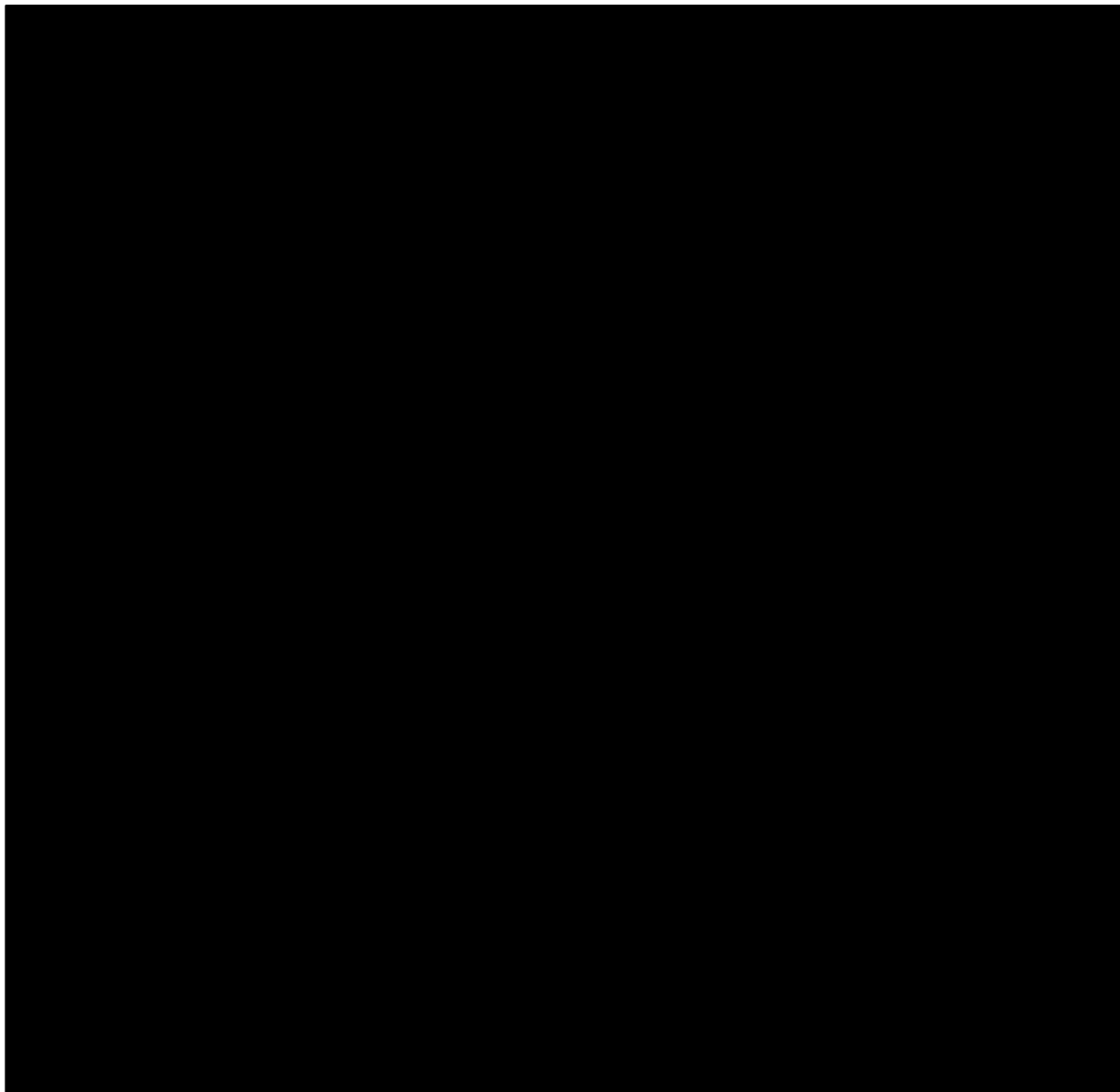
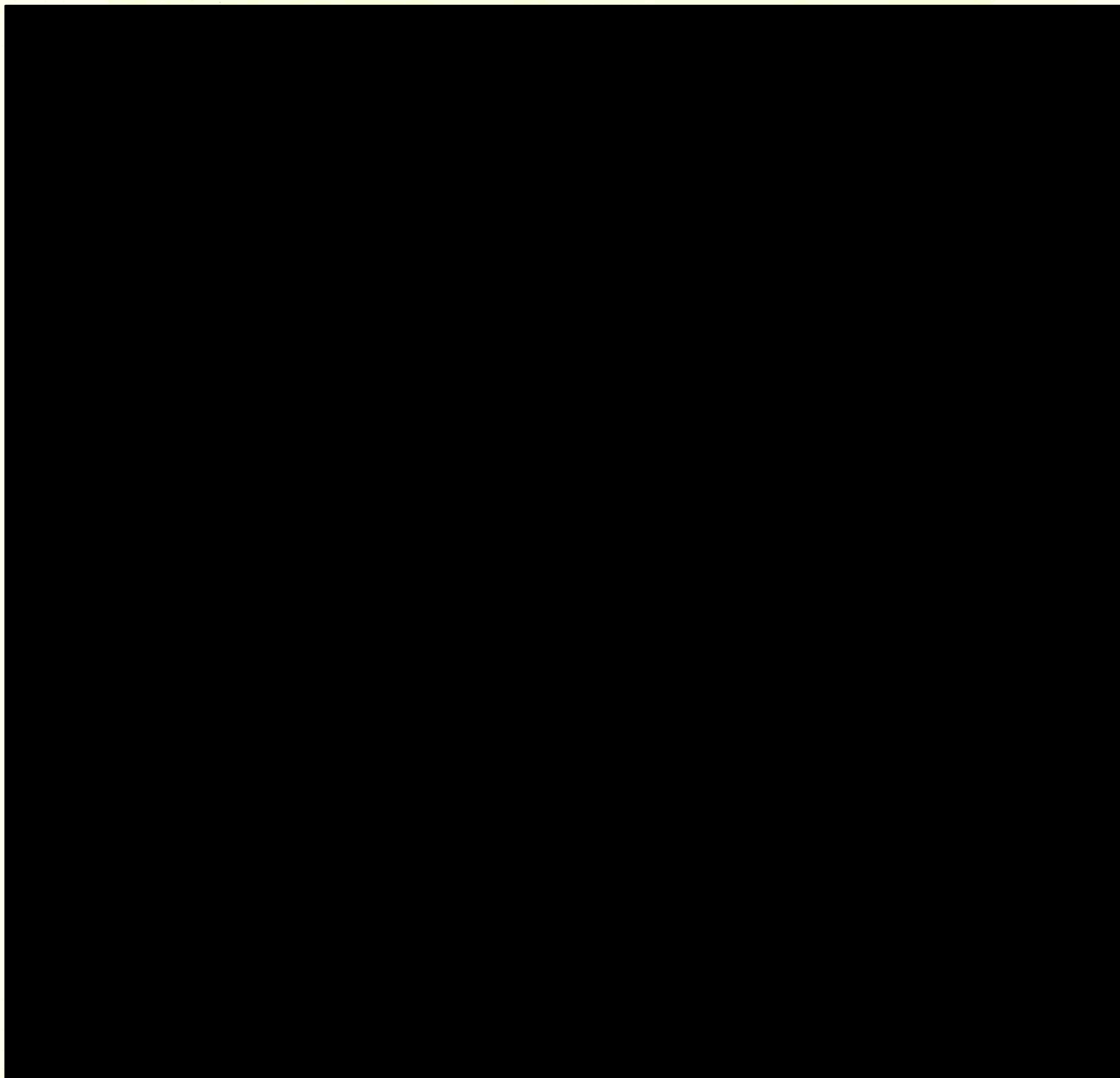




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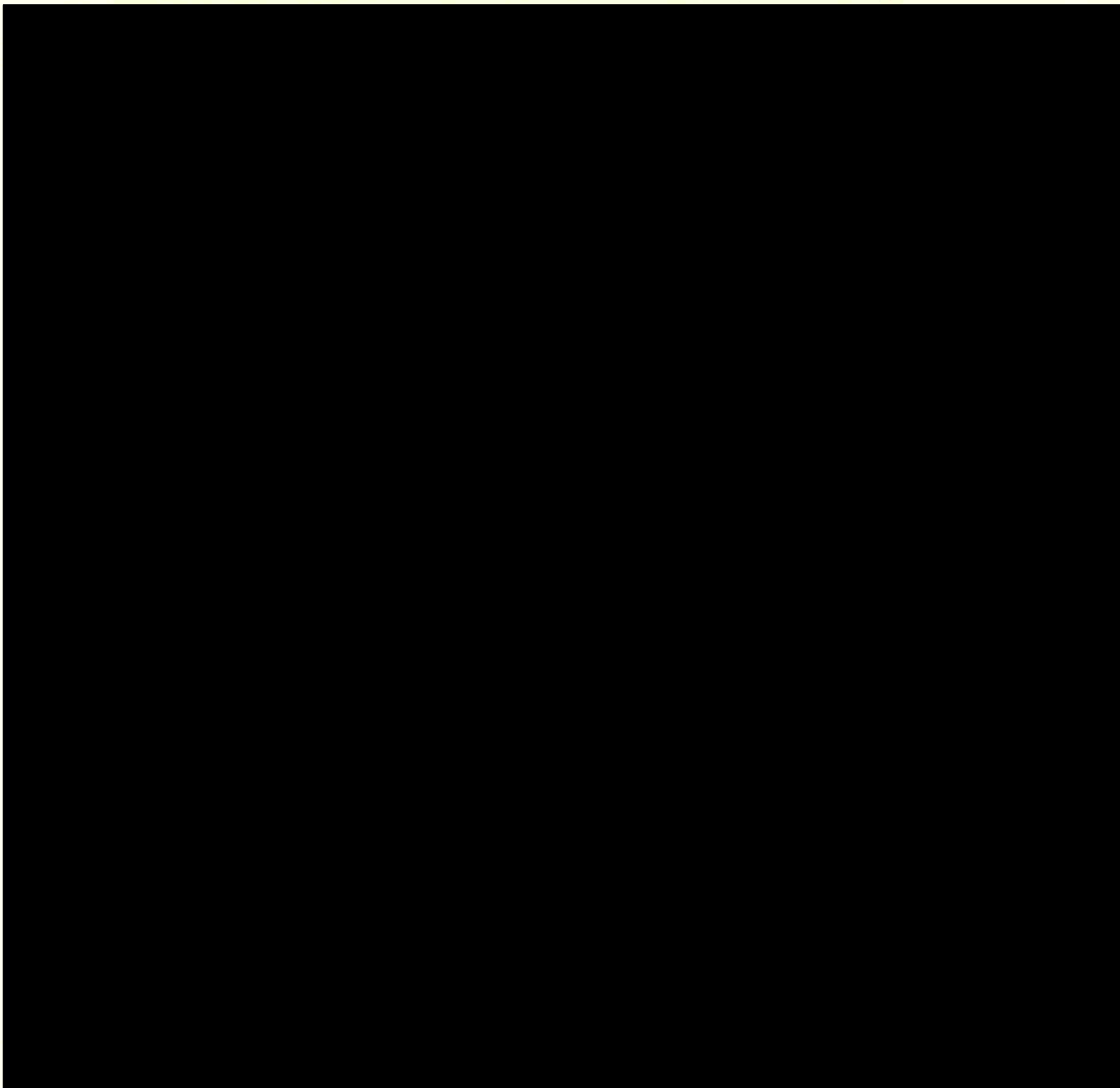


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